

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 17:35:57 ON 24 JUL 2007

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FILE COVERS 1907 - 24 Jul 2007 VOL 147 ISS 5

FILE LAST UPDATED: 23 Jul 2007 (20070723/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

Inventor Search

=> d que nos l118

L116 299 SEA FILE=HCAPLUS ABB=ON PLU=ON LAWSON C?/AU

L117 3779 SEA FILE=HCAPLUS ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
OR WILSON A?/AU OR WEYMOUTH A?/AU

L118 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 AND L117

=> d ibib ed abs l118 1-3

L118 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:58228 HCAPLUS Full-text

DOCUMENT NUMBER: 142:114361

TITLE: Preparation of steroid modified chacotrioses and solatrioses via glycosylation reaction

INVENTOR(S): Lawson, Christopher John;
Weymouth-Wilson, Alexander Charles

PATENT ASSIGNEE(S): Glycomed Sciences Limited, Cayman I.

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005005454	A1	20050120	WO 2004-EP7537	20040708

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,

10/563,743

CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

AU 2004255351 A1 20050120 AU 2004-255351

200407
08

CA 2530979 A1 20050120 CA 2004-2530979

200407
08

EP 1654271 A1 20060510 EP 2004-740827

200407
08

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

US 2007066814 A1 20070322 US 2006-563743

200607
10

PRIORITY APPLN. INFO.:

EP 2003-15502

A

200307
08

WO 2004-EP7537

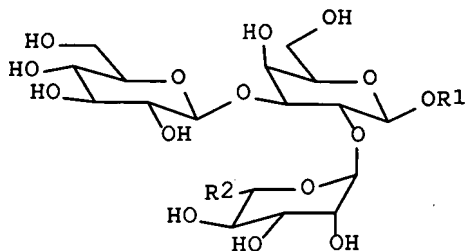
W

200407
08

OTHER SOURCE(S): MARPAT 142:114361

ED Entered STN: 21 Jan 2005

GI



AB The present invention relates to steroid-modified chacotrioses I, wherein R1 is steroid or a derivative thereof having a hydroxyl group in the 3 position and no further unprotected hydroxyl groups; and each R2 independently represents a straight or branched C1-14 alkyl group, a C5-12 aryl or heteroaryl group optionally substituted by one or more halogen atoms or C1-4 alkyl group, or hydroxyl group, and the synthesis thereof as well as to

10/563,743

intermediate compds. useful for the synthesis of the steroid modified
chacotrioses and solatrioses via glycosylation reaction (no data).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L118 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:58223 HCAPLUS Full-text

DOCUMENT NUMBER: 142:114360

TITLE: Preparation of alkaloid glycosides, steroid
oligosaccharides, and modified sola-trioses via
glycosylation reaction

INVENTOR(S): Lawson, Christopher John;
Weymouth-Wilson, Alexander Charles

PATENT ASSIGNEE(S): Glycomed Sciences Limited, Australia

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

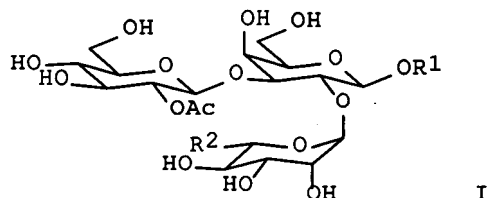
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005005449	A2	20050120	WO 2004-EP7538	20040708
WO 2005005449	A3	20050421		
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	
RW:			BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
AU 2004255352	A1	20050120	AU 2004-255352	20040708
CA 2529358	A1	20050120	CA 2004-2529358	20040708
EP 1644391	A2	20060412	EP 2004-763140	20040708
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK	
US 2007135358	A1	20070614	US 2006-563745	20060829
PRIORITY APPLN. INFO.:			EP 2003-15501	A
				20030708
			WO 2004-EP7538	W

OTHER SOURCE(S): MARPAT 142:114360
 ED Entered STN: 21 Jan 2005
 GI



AB The invention pertains to steroid modified sola-trioses and the synthesis thereof as well as to intermediate compds. useful for the synthesis of the steroid modified solatrioses (no data). Trisaccharides I, wherein R1 is steroid or a derivative thereof having a hydroxyl group in 3-position and no further unprotected hydroxyl groups; R2 is alkyl, OH; were prepared via glycosylation reaction (no data).

L118 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:305565 HCAPLUS Full-text

DOCUMENT NUMBER: 125:7906

TITLE: Polymorphism within the human anti-pig repertoire

AUTHOR(S): Goldberg, L. C.; Lee, J.; Cairns, T.;
 Weymouth-Wilson, A.; Simpson, P.;
 Lawson, C.; Hacking, A.; Nilsson, R.;
 Hakim, N.; Taube, D.

CORPORATE SOURCE: Transplant Unit, St Mary's Hospital, London, W2
 1NY, UK

SOURCE: Transplantation Proceedings (1996), 28(2),
 549-550

CODEN: TRPPA8; ISSN: 0041-1345

PUBLISHER: Appleton & Lange

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 May 1996

AB The major proportion of human anti-pig antibodies is directed against carbohydrate antigens terminating in Gal α 1,3Gal (Galili antigens). The structure of the pig Galili antigens has been determined from glycolipid fractions of aorta and kidney, and is the penta-saccharide Gal α 1,3Gal β 1,4GlcNac β 1,3Gal β 1, 4Glc β 1. Antibody binding sites for carbohydrate antigens can have a binding requirement for as few as two saccharides, and there are therefore many pot. epitopes on the penta-saccharide mol. to which antibodies might bind. To explore this pot. antibody polymorphism in humans, the authors synthesized different forms of Galili antigens and used them as targets for antibody binding in ELISA and as immunoadsorbents for human serum.

=> d his nofile

(FILE 'HOME' ENTERED AT 11:27:13 ON 24 JUL 2007)

FILE 'REGISTRY' ENTERED AT 11:27:24 ON 24 JUL 2007

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      ACT KRI743/A
L1      STR
L2      7869 SEA SSS FUL L1
      ACT TODAY36/Q
L3      STR
      ACT TODAY38/Q
L4      STR
      ACT TODAY40/Q
L5      STR
      ACT TODAY46/Q
L6      STR
      ACT TODAY48/Q
L7      STR
      ACT TODAY34/Q
L8      STR
L9      STRUCTURE
      ACT TODAY44/Q
L10     STR
L11     STRUCTURE
L12     5 SEA SUB=L2 SSS SAM L3
L13     0 SEA SUB=L2 SSS SAM L4
L14     10 SEA SUB=L2 SSS SAM L5
L15     50 SEA SUB=L2 SSS SAM L6
L16     3 SEA SUB=L2 SSS SAM L7
L17     0 SEA SUB=L2 SSS SAM L9
L18     0 SEA SUB=L2 SSS SAM L11
L19     STRUCTURE
L20     STRUCTURE
L23     1 SEA ABB=ON PLU=ON SOLASODINE/CN
L24     591 SEA ABB=ON PLU=ON 9991.5/RID
L25     1 SEA ABB=ON PLU=ON SOLANIDINE/CN
L26     400 SEA ABB=ON PLU=ON 9614.3/RID
L27     990 SEA ABB=ON PLU=ON L24 OR L26
L28     40 SEA ABB=ON PLU=ON L26 AND L2
L29     5 SEA SUB=L2 SSS SAM L3
L30     100 SEA SUB=L2 SSS FUL L3
      SAV KRIS743A/A L30
L31     10 SEA SUB=L2 SSS SAM L5
L32     254 SEA SUB=L2 SSS FUL L5
      SAV KRIS743B/A L32
L33     3 SEA SUB=L2 SSS SAM L7
L34     60 SEA SUB=L2 SSS FUL L7
      SAV KRIS743C/A L34
L35     0 SEA SUB=L2 SSS SAM L19
L36     1 SEA SUB=L2 SSS FUL L19
      SAV KRIS743D/A L36
L37     3 SEA SUB=L2 SSS SAM L20
L38     73 SEA SUB=L2 SSS FUL L20
      SAV KRIS743E/A L38
L39     2 SEA ABB=ON PLU=ON CHACOTRIOSE?
L40     3 SEA ABB=ON PLU=ON SOLATRIOSE?

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FILE 'HCAPLUS' ENTERED AT 14:48:10 ON 24 JUL 2007

L41 11836 SEA ABB=ON PLU=ON L39 OR ?TRIOSE?/BI

10/563,743

L42 11835 SEA ABB=ON PLU=ON L40 OR ?TRIOSE?/BI
L43 6 SEA ABB=ON PLU=ON L41 (L) STEROID#/OBI
L44 6 SEA ABB=ON PLU=ON L42 (L) STEROID#/OBI
L45 27601 SEA ABB=ON PLU=ON GLYCOSYLATION+OLD,NT/CT
L46 571499 SEA ABB=ON PLU=ON STEROIDS+OLD,NT/CT
L47 1054 SEA ABB=ON PLU=ON L45 AND L46
L48 7 SEA ABB=ON PLU=ON L47 AND (L41 OR L42)
L49 776 SEA ABB=ON PLU=ON TRISACCHARIDES/CT
L50 5 SEA ABB=ON PLU=ON L47 AND L49
L51 16 SEA ABB=ON PLU=ON L43 OR L44 OR L48 OR L50
L52 658 SEA ABB=ON PLU=ON L28
L53 35 SEA ABB=ON PLU=ON L30
L54 1380 SEA ABB=ON PLU=ON L32
L55 53 SEA ABB=ON PLU=ON L34
L56 2 SEA ABB=ON PLU=ON L36
L57 35 SEA ABB=ON PLU=ON L38
L58 18 SEA ABB=ON PLU=ON L51 OR L56
L71 299 SEA ABB=ON PLU=ON LAWSON C?/AU
L72 12 SEA ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
L73 3 SEA ABB=ON PLU=ON L71 AND L72
L82 0 SEA ABB=ON PLU=ON L52 AND (L30 OR L34 OR L57)
L83 41 SEA ABB=ON PLU=ON L52 (L) PREP/RL

FILE 'REGISTRY' ENTERED AT 16:28:11 ON 24 JUL 2007

L84 20 SEA ABB=ON PLU=ON L34 AND L38

FILE 'HCAPLUS' ENTERED AT 16:31:38 ON 24 JUL 2007

L85 19 SEA ABB=ON PLU=ON L84

FILE 'REGISTRY' ENTERED AT 16:32:53 ON 24 JUL 2007

L86 42 SEA ABB=ON PLU=ON 46.150.18/RID AND L34

FILE 'HCAPLUS' ENTERED AT 16:33:37 ON 24 JUL 2007

L87 38 SEA ABB=ON PLU=ON L86

FILE 'REGISTRY' ENTERED AT 16:34:06 ON 24 JUL 2007

L88 0 SEA ABB=ON PLU=ON L34 NOT (L86 OR L84)

L89 53 SEA ABB=ON PLU=ON L38 NOT L84

L90 STRUCTURE

L91 50 SEA SSS SAM L90

L92 10 SEA ABB=ON PLU=ON L89 AND 1 46.157.1/RID

FILE 'HCAPLUS' ENTERED AT 16:40:03 ON 24 JUL 2007

L93 15 SEA ABB=ON PLU=ON L92

L94 610 SEA ABB=ON PLU=ON L52 AND L54

L95 106 SEA ABB=ON PLU=ON L56 OR L83 OR L85 OR L87 OR L93

L96 106 SEA ABB=ON PLU=ON L95 NOT ((L51 OR L73))

L97 838 SEA ABB=ON PLU=ON L2 AND L24

L98 1356 SEA ABB=ON PLU=ON L2 AND (L24 OR L26)

L99 882 SEA ABB=ON PLU=ON (L30 OR L32 OR L34 OR L36 OR L38)
AND (L24 OR L26)

L100 1 SEA ABB=ON PLU=ON L30 AND (L24 OR L26)

L101 881 SEA ABB=ON PLU=ON L32 AND (L24 OR L26)

L102 0 SEA ABB=ON PLU=ON L34 AND (L24 OR L26)

L103 0 SEA ABB=ON PLU=ON L36 AND (L24 OR L26)

L104 1 SEA ABB=ON PLU=ON L38 AND (L24 OR L26)

L105 2 SEA ABB=ON PLU=ON (L30 OR L34 OR L36 OR L38) AND (L24
OR L26)

L106 243 SEA ABB=ON PLU=ON L32 (L) PREP/RL

L107 57 SEA ABB=ON PLU=ON L106 AND (L24 OR L26)

10/563,743

L108	60	SEA	ABB=ON	PLU=ON	(L56 OR L105 OR L107)
L109	113	SEA	ABB=ON	PLU=ON	(L56 OR L105 OR L107 OR L55)
L110	97	SEA	ABB=ON	PLU=ON	L109 AND (1840-2004)/PRY,PY,AY
L111	53	SEA	ABB=ON	PLU=ON	L110 AND L108
L112	0	SEA	ABB=ON	PLU=ON	L105 AND LLL0/OBI
L113	2	SEA	ABB=ON	PLU=ON	L105 AND L110
L114	21	SEA	ABB=ON	PLU=ON	L55 AND (L53 OR L54 OR L56 OR L57)
L115	16	SEA	ABB=ON	PLU=ON	L114 AND (1840-2004)/PRY,PY,AY
L116	299	SEA	ABB=ON	PLU=ON	LAWSON C?/AU
L117	3779	SEA	ABB=ON	PLU=ON	WEYMOUTH-WILSON A?/AU OR WILSON A?/AU OR WEYMOUTH A?/AU
L118	3	SEA	ABB=ON	PLU=ON	L116 AND L117
L119	9	SEA	ABB=ON	PLU=ON	L51 AND (1840-2004)/PRY,PY,AY
L120	50	SEA	ABB=ON	PLU=ON	L107 AND (1840-2004)/PRY,PY,AY
L121	25	SEA	ABB=ON	PLU=ON	(L56 OR L105 OR L114 OR L102)
L122	20	SEA	ABB=ON	PLU=ON	L121 AND (1840-2004)/PRY,PY,AY
L123	7	SEA	ABB=ON	PLU=ON	L119 NOT L118
L124	50	SEA	ABB=ON	PLU=ON	L120 NOT (L118 OR L119)
L125	19	SEA	ABB=ON	PLU=ON	L122 NOT (L118 OR L119 OR L120)

FILE 'HCAPLUS' ENTERED AT 17:35:57 ON 24 JUL 2007

D QUE NOS L118

D IBIB ED ABS L118 1-3

Text Search

=> d que nos l123

L39 2 SEA FILE=REGISTRY ABB=ON PLU=ON CHACOTRIOSE?
 L40 3 SEA FILE=REGISTRY ABB=ON PLU=ON SOLATRIOSE?
 L41 11836 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR ?TRIOSE?/BI
 L42 11835 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 OR ?TRIOSE?/BI
 L43 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L41 (L) STEROID#/OBI
 L44 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 (L) STEROID#/OBI
 L45 27601 SEA FILE=HCAPLUS ABB=ON PLU=ON GLYCOSYLATION+OLD,NT/CT

 L46 571499 SEA FILE=HCAPLUS ABB=ON PLU=ON STEROIDS+OLD,NT/CT
 L47 1054 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND L46
 L48 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND (L41 OR L42)
 L49 776 SEA FILE=HCAPLUS ABB=ON PLU=ON TRISACCHARIDES/CT
 L50 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND L49
 L51 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L44 OR L48 OR
 L50
 L116 299 SEA FILE=HCAPLUS ABB=ON PLU=ON LAWSON C?/AU
 L117 3779 SEA FILE=HCAPLUS ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
 OR WILSON A?/AU OR WEYMOUTH A?/AU
 L118 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 AND L117
 L119 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND (1840-2004)/PRY,
 PY,AY
 L123 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L119 NOT L118

=> d ibib ed abs hitstr l123 1-7

L123 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:860294 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:59852
 TITLE: Synthesis of dihydrodiosgenin glycosides as
 mimetics of bidesmosidic steroidal saponins
 AUTHOR(S): Suhr, Rene; Lahmann, Martina; Oscarson, Stefan;
 Thiem, Joachim
 CORPORATE SOURCE: Institut fuer Organische Chemie, Universitaet
 Hamburg, Hamburg, 20146, Germany
 SOURCE: European Journal of Organic Chemistry (
 2003), (20), 4003-4011
 CODEN: EJOCFK; ISSN: 1434-193X
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 140:59852
 ED Entered STN: 03 Nov 2003
 AB The focus of this work is the synthesis of bidesmosidic saponin mimetics.
 Therefore, dihydrodiosgenin derivs., which differ from the natural compds. by
 reduction of the 22-(hemi) acetal were used as glycosyl acceptors. In
 preliminary studies, the dihydrodiosgenin glycosides, as well as
 trisaccharide, were synthesized. The acceptors were subjected to DMTST-
 mediated glucosylation for the synthesis of the chacotriose-substituted
 compound For a selective 2,4-di-rhamnosylation of the dihydrodiosgenin
 glucopyranoside, differentiation of the glucose OH groups was achieved by
 selective benzylation with 1-(benzyloxy)benzotriazole. Reaction of the 3,6-
 di-O-benzoate with the perbenzoylated Et thiorhamnopyranoside donor gave the
 2,4-di-rhamnosylated compound, together with the mono-rhamnosylated derivative
 IT 512-04-9

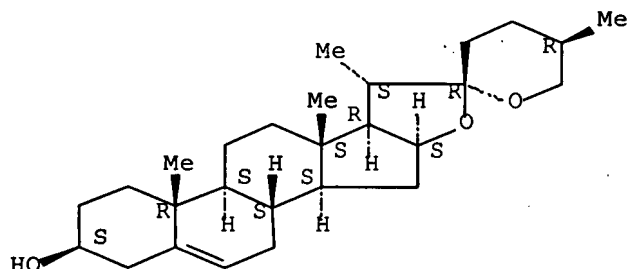
10/563,743

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of dihydrosiosgenin glycosides and oligosaccharides to be
used as mimetics of bidesmosidic steroidal saponins)

RN 512-04-9 HCAPLUS

CN Spirost-5-en-3-ol, (3 β ,25R) - (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L123 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:755785 HCAPLUS Full-text

DOCUMENT NUMBER: 140:69860

TITLE: Steroid-porphyrin conjugate for saccharide
sensing in protic media

AUTHOR(S): Dukh, Mykhaylo; Saman, David; Lang, Kamil;
Pouzar, Vladimir; Cerny, Ivan; Drasar, Pavel;
Kral, Vladimir

CORPORATE SOURCE: Institute of Organic Chemistry and Biochemistry,
Academy of Sciences of the Czech Republic,
Prague, 166 10, Czech Rep.

SOURCE: Organic & Biomolecular Chemistry (2003
) , 1(19), 3458-3463

CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 26 Sep 2003

AB A new saccharide receptor in protic media was designed and synthesized. The receptor combines advantages of steroids, which are responsible for saccharide binding, and of the porphyrin moiety acting as a signaling component of the mol. due to changes in UV-visible electronic spectra. The synthesis is based on condensation of steroid aldehyde with pyrrole to form the porphyrin unit with four protected steroid moieties. After deprotection, meso-substituted porphyrin contains 12-hydroxy groups on the steroidal part. The receptor is soluble in aqueous solns. and exhibits high complexation affinity towards saccharides. Because the receptor extensively aggregates in water, most of the expts. were performed in 50% aqueous 2-propanol where aggregation is significantly eliminated. Binding is evidenced by spectral changes in the Soret region of the receptor in UV-visible absorption spectra allowing the evaluation of the binding consts. Addnl. confirmation of binding was obtained using ¹H NMR, Raman and IR spectroscopies and the surface plasmon resonance technique. The receptor exhibits higher selectivity for oligosaccharides over monosaccharide. The results point to the importance of a combination of multiple binding via H-bonding and hydrophobic interactions.

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REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L123 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:862532 HCAPLUS Full-text
DOCUMENT NUMBER: 138:271874
TITLE: A facile approach to diosgenin and furostan type
saponins bearing a 3 β -chacotriose
moiety
AUTHOR(S): Lahmann, Martina; Gyback, Helena; Garegg, Per
J.; Oscarson, Stefan; Suhr, Rene; Thiem, Joachim
CORPORATE SOURCE: Department of Organic Chemistry, Stockholm
University, Stockholm, S-10691, Swed.
SOURCE: Carbohydrate Research (2002),
337(21-23), 2153-2159
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:271874

ED Entered STN: 13 Nov 2002

AB Combination of a one-pot coupling technique and the use of benzyl ethers as permanent protecting groups offered a short and simple route to dioscin-type saponins. This strategy in combination with a mild reductive opening procedure of the spiroketal function in diosgenin also offered a convenient approach to bidesmosidic furostan type saponins. Me₃N·BH₃/AlCl₃ promoted acetal opening of 3-O-TBDMS-protected diosgenin gave the 26-OH acceptor into which a benzylated β -glucose moiety was introduced by a SN₂-type imidate coupling. After cleavage of the silyl ether, the 3 β -O-glucose and the 4-O-linked rhamnose of the chacotriose unit were introduced by a NIS/AgOTf-promoted one-pot coupling sequence utilizing thioglycoside donors and their different reactivity in different solvents. After removal of a benzoyl group, the same coupling conditions were also used for the coupling of the second 2-O-linked rhamnose unit. The target substance was obtained after cleavage of the protecting benzyl ethers under Birch-type conditions, which did not affect the double bond in the steroid skeleton.

IT 512-04-9, Diosgenin

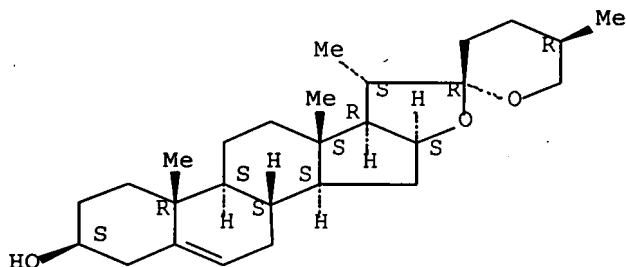
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of diosgenyl glycosides and 3 β -chacotriose oligosaccharides via one-pot glycosylation and using benzyl ethers as protecting groups)

RN 512-04-9 HCAPLUS

CN Spirost-5-en-3-ol, (3 β ,25R)- (CA INDEX NAME)

Absolute stereochemistry.



10/563,743

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L123 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:760652 HCAPLUS Full-text

DOCUMENT NUMBER: 138:4754

TITLE: Stereoselective Synthesis of L-Oliose
Trisaccharide via Iterative Alkynol
Cycloisomerization and Acid-Catalyzed
Glycosylation

AUTHOR(S): McDonald, Frank E.; Wu, Minglang

CORPORATE SOURCE: Department of Chemistry, Emory University,
Atlanta, GA, 30322, USA

SOURCE: Organic Letters (2002), 4(22),
3979-3981

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:4754

ED Entered STN: 08 Oct 2002

AB The synthesis of an allyl- α L-olioside diastereomer of digitoxigenin provides
valuable insights into the generality and protective-group dependence of acid-
catalyzed glycosylations of glycals to 2-deoxy carbohydrates.

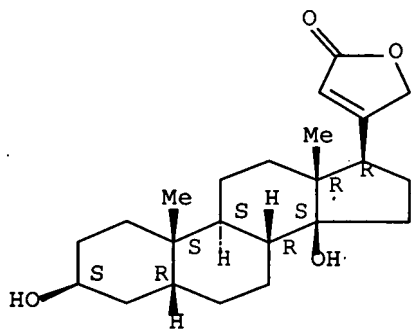
IT 143-62-4, Digitoxigenin

RL: RCT (Reactant); RACT (Reactant or reagent)
(stereoselective synthesis of L-olioside trisaccharide via
cyclo-isomerization of alkynol and acid-catalyzed glycosylation
of glycals)

RN 143-62-4 HCAPLUS

CN Card-20(22)-enolide, 3,14-dihydroxy-, (3 β ,5 β)- (CA INDEX
NAME)

Absolute stereochemistry.



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L123 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:466028 HCAPLUS Full-text

DOCUMENT NUMBER: 137:33490

TITLE: Preparation of lipids comprising an aminoxy
group in preparing liposomes for gene therapy

10/563,743

INVENTOR(S): Jorgensen, Michael; Keller, Michael; Miller,
Andrew David; Perouzel, Eric
PATENT ASSIGNEE(S): IC Vec Limited, UK
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048170	A1	20020620	WO 2001-GB5385	20011205
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW</p> <p>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p>				
WO 2001048233	A1	20010705	WO 2000-GB4767	20001212
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW</p> <p>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG</p>				
GB 2372502	A	20020828	GB 2001-13781	20010606
GB 2372502	B	20041013		
AU 200222128	A	20020624	AU 2002-22128	20011205
EP 1351972	A1	20031015	EP 2001-270543	20011205
EP 1351972	B1	20060301		
<p>R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR</p>				
JP 2004520301	T	20040708	JP 2002-549701	20011205

10/563,743

RU 2290409

C2

20061227

RU 2003-120455

200112
05

HK 1057048

A1

20060714

HK 2003-109313

200312
22

PRIORITY APPLN. INFO.:

WO 2000-GB4767

W

200012
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GB 2001-13781

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GB 1999-30533

A

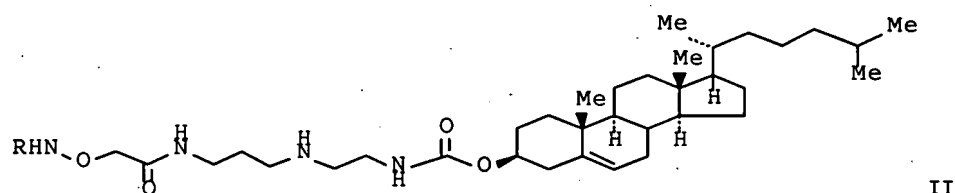
199912
23

WO 2001-GB5385

W

200112
05

OTHER SOURCE(S): MARPAT 137:33490
ED Entered STN: 21 Jun 2002
GI



AB The present invention discloses preparation of lipids, HN(R2)OB [I; B = lipid; R2 = H, hydrocarbyl]. Thus, maltoheptaosyl lipid II (R = maltoheptaosyl) was prepared in a multistep synthetic sequence starting from cholesteryl chloroformate, 2-aminoethanol, amino-propanol, O-(carboxymethyl)hydroxylamine hydrochloride and maltoheptaose. I were used in preparing liposomes for gene therapy.

IT 57-88-5, Cholesterol, biological studies

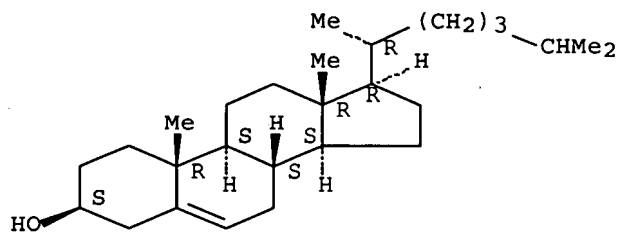
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(preparation of lipids comprising an aminoxy group in preparing liposomes for gene therapy)

RN 57-88-5 HCAPLUS

CN Cholest-5-en-3-ol (3 β)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:125647 HCAPLUS Full-text

DOCUMENT NUMBER: 132:279430

TITLE: Synthesis of neosaponins carrying oligosaccharides from natural products

AUTHOR(S): Ikeda, Tsuyoshi; Kinjo, Junei; Kajimoto, Tetsuya; Nohara, Toshihiro

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Kumamoto University, Kumamoto, 862-0973, Japan

SOURCE: Heterocycles (2000), 52(2), 775-798

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Feb 2000

AB The natural oligosaccharide moieties, α -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-galactopyranosyl-(1 \rightarrow 2)- β -D-glucuronopyranose (fabatriose) and α -L-arabinofuranosyl-(1 \rightarrow 4)-[β -D-glucopyranosyl-(1 \rightarrow 3)]- α -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-glucopyranose (mimosatetraose), were resp. cleaved from soyasaponin I and julibrosides, and were linked to appropriate aglycons to give neosaponins. The cytotoxicity and hepatoprotective activity of the obtained neosaponins were assayed. The trans-glycosidation method developed here could be applied to synthesize novel bioactive glycosides.

IT 512-04-9, Diosgenin

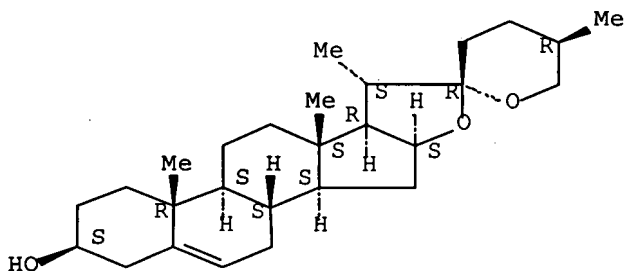
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation, cytotoxicity, and hepatoprotective activity of neosaponins carrying oligosaccharides from natural products)

RN 512-04-9 HCAPLUS

CN Spirost-5-en-3-ol, (3 β ,25R)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L123 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:330821 HCAPLUS Full-text

DOCUMENT NUMBER: 129:54521

TITLE: Chemical transglycosylation of functional
bioactive glyco-linkages

AUTHOR(S): Ikeda, Tsuyoshi; Kajimoto, Tetsuya; Kinjo,
Junei; Nakayama, Kensei; Nohara, Toshihiro

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Kumamoto
University, Kumamoto, 862, Japan

SOURCE: Tetrahedron Letters (1998), 39(21),
3513-3516

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 03 Jun 1998

AB The natural functional bioactive oligosaccharides moieties, mimosatetraose and
fabatriose, were cut off from julibrosides and soyasaponin by chemical and
enzymic methods, resp., and were pasted to diosgenin to give neosaponins. The
obtained neosaponins were tested for cytotoxicity and hepatoprotective
activity. This method could be applied to the synthesis of novel bioactive
glycosides.

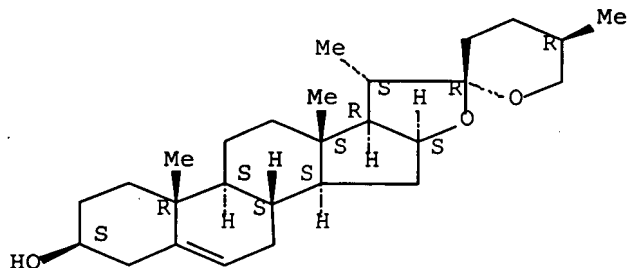
IT 512-04-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and cytotoxicity and hepatoprotective activity of
neosaponins glycosides via transglycosidation)

RN 512-04-9 HCAPLUS

CN Spirost-5-en-3-ol, (3 β ,25R)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

=> file reg

FILE 'REGISTRY' ENTERED AT 17:38:17 ON 24 JUL 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 JUL 2007 HIGHEST RN 943188-87-2

DICTIONARY FILE UPDATES: 23 JUL 2007 HIGHEST RN 943188-87-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

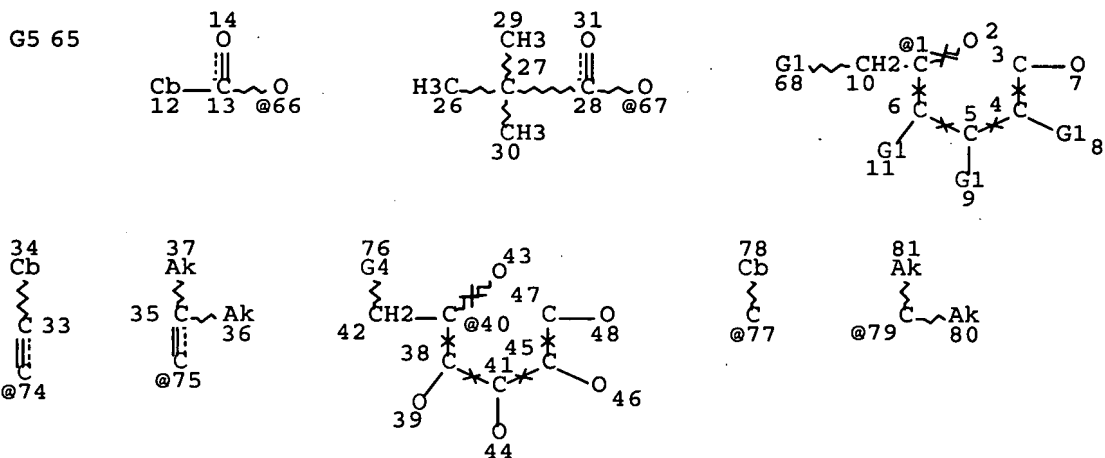
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d stat que 128

L1 STR



VAR G5=1/16/40

NODE ATTRIBUTES:

NSPEC IS RC AT 2
 NSPEC IS RC AT 3
 NSPEC IS RC AT 19
 NSPEC IS RC AT 23
 NSPEC IS RC AT 43
 NSPEC IS RC AT 47
 CONNECT IS E1 RC AT 36
 CONNECT IS E1 RC AT 37
 CONNECT IS E1 RC AT 80
 CONNECT IS E1 RC AT 81
 DEFAULT MLEVEL IS ATOM
 GGCAT IS MCY UNS AT 12
 GGCAT IS MCY UNS AT 34
 GGCAT IS MCY UNS AT 78
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E6 C AT 12
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 ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:

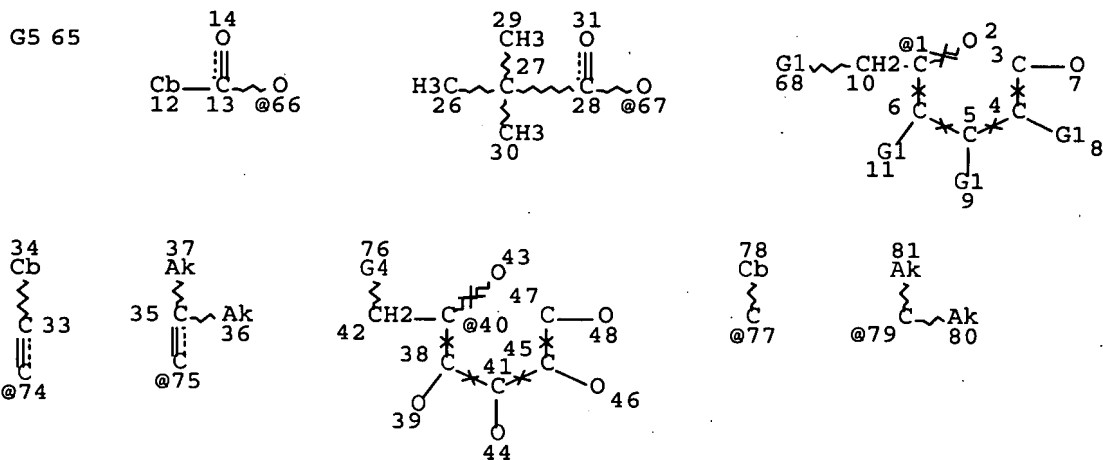
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 NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

L2 7869 SEA FILE=REGISTRY SSS FUL L1
 L26 400 SEA FILE=REGISTRY ABB=ON PLU=ON 9614.3/RID
 L28 40 SEA FILE=REGISTRY ABB=ON PLU=ON L26 AND L2

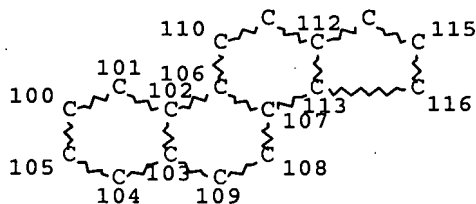
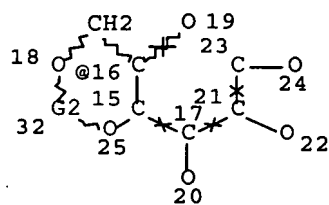
=> d stat que 130

L1 STR



99

111 114



Page 2-A

VAR G1=66/OH/67/C(O)CH3

VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

NSPEC IS RC AT 19

NSPEC IS RC AT 23

NSPEC IS RC AT 43

NSPEC IS RC AT 47

CONNECT IS E1 RC AT 36

CONNECT IS E1 RC AT 37

CONNECT IS E1 RC AT 80

CONNECT IS E1 RC AT 81

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

GGCAT IS MCY UNS AT 34

GGCAT IS MCY UNS AT 78

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 12

ECOUNT IS E6 C AT 34

ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:

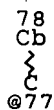
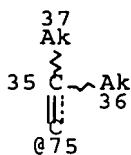
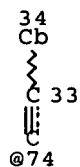
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

L2 7869 SEA FILE=REGISTRY SSS FUL L1

L3 STR



10/563,743

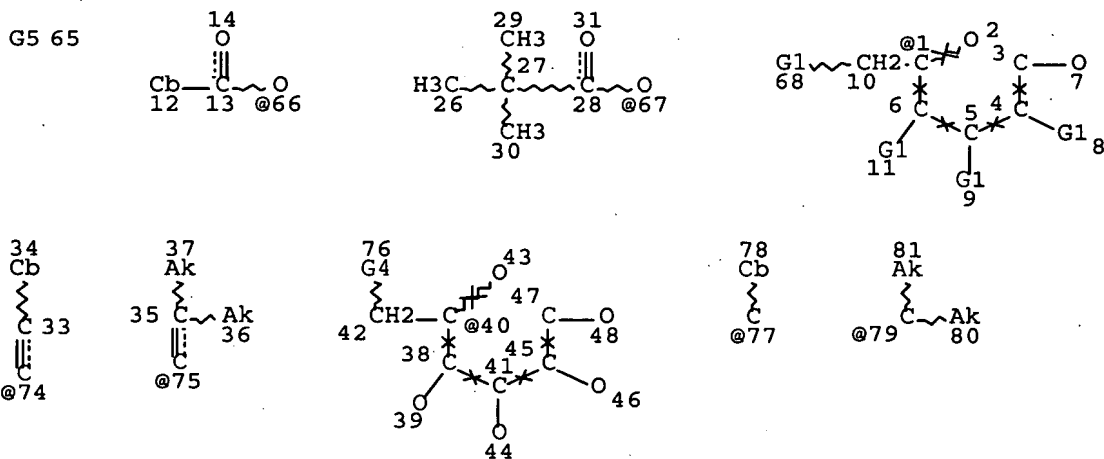
CONNECT IS E1 RC AT 81
 DEFAULT MLEVEL IS ATOM
 GGCAT IS MCY UNS AT 34
 GGCAT IS MCY UNS AT 78
 GGCAT IS PCY AT 82
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E6 C AT 34
 ECOUNT IS E6 C AT 78
 ECOUNT IS M17 C AT 82

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
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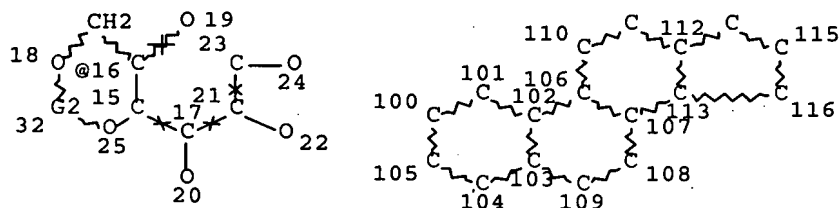
=> d stat que l32
 L1 STR



99

111 114

Page 1-A



Page 2-A
 VAR G1=66/OH/67/C(O)CH3

VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

NSPEC IS RC AT 19

NSPEC IS RC AT 23

NSPEC IS RC AT 43

NSPEC IS RC AT 47

CONNECT IS E1 RC AT 36

CONNECT IS E1 RC AT 37

CONNECT IS E1 RC AT 80

CONNECT IS E1 RC AT 81

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

GGCAT IS MCY UNS AT 34

GGCAT IS MCY UNS AT 78

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 12

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ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

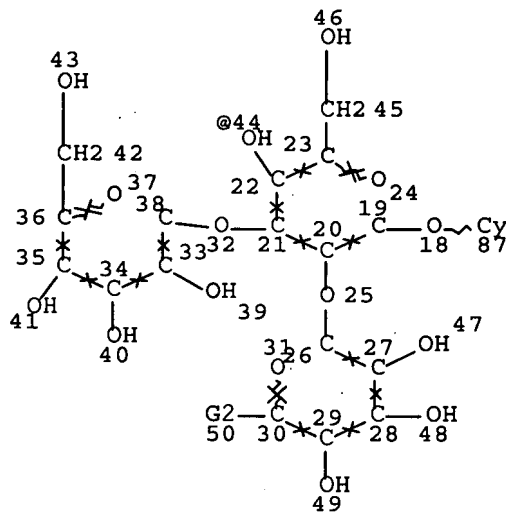
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STEREO ATTRIBUTES: NONE

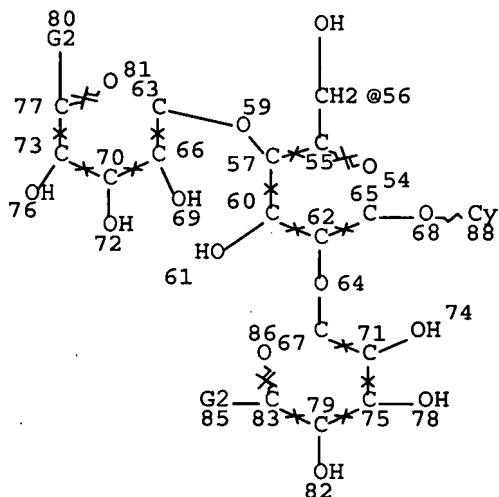
L2 7869 SEA FILE=REGISTRY SSS FUL L1

L5 STR

G1 51 Ak @52 Cy @53



58



Page 2-A

VAR G1=44/56

VAR G2=52/53

NODE ATTRIBUTES:

NSPEC	IS	RC	AT	19
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NSPEC	IS	RC	AT	26
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NSPEC	IS	RC	AT	63
NSPEC	IS	RC	AT	65
NSPEC	IS	RC	AT	67
NSPEC	IS	RC	AT	81
NSPEC	IS	RC	AT	86

CONNECT IS E1 RC AT 52

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 53

GGCAT IS PCY AT 87

GGCAT IS PCY AT 88

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M17 C AT 87

ECOUNT IS M17 C AT 88

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

L32 254 SEA FILE=REGISTRY SUB=L2 SSS FUL L5

100.0% PROCESSED 5830 ITERATIONS

SEARCH TIME: 00.00.01

254 ANSWERS

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L1 STR

L2 7869 SEA FILE=REGISTRY SSS FUL L1

10/563,743

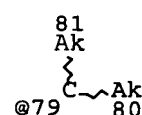
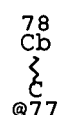
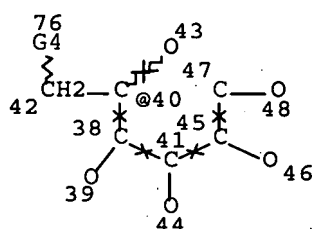
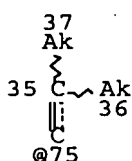
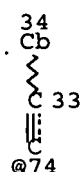
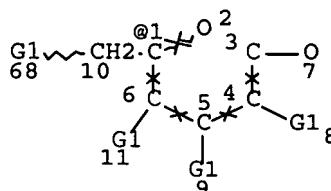
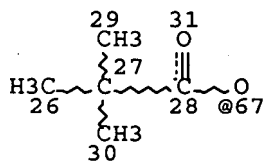
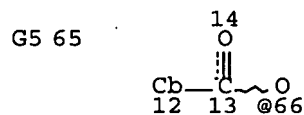
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L34 60 SEA FILE=REGISTRY SUB=L2 SSS FUL L7

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SEARCH TIME: 00.00.01

60 ANSWERS

=> d stat que 134

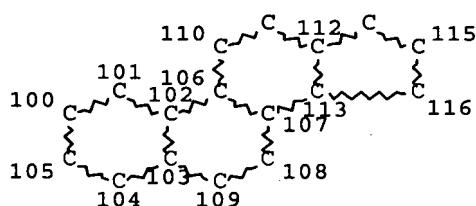
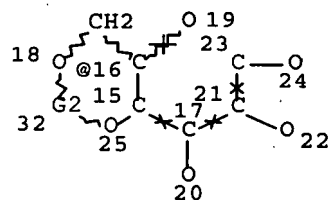
L1 STR



99

111 114

Page 1-A



Page 2-A

VAR G1=66/OH/67/C(O)CH3

VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

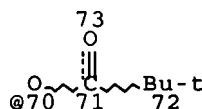
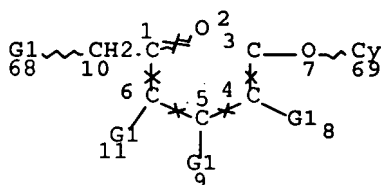
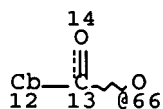
NSPEC	IS	RC	AT	2
NSPEC	IS	RC	AT	3
NSPEC	IS	RC	AT	19
NSPEC	IS	RC	AT	23
NSPEC	IS	RC	AT	43
NSPEC	IS	RC	AT	47
CONNECT	IS	E1	RC	AT 36
CONNECT	IS	E1	RC	AT 37
CONNECT	IS	E1	RC	AT 80
CONNECT	IS	E1	RC	AT 81

10/563,743

DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 12
GGCAT IS MCY UNS AT 34
GGCAT IS MCY UNS AT 78
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E6 C AT 12
ECOUNT IS E6 C AT 34
ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE
L2 7869 SEA FILE=REGISTRY SSS FUL L1
L7 STR



VAR G1=66/70
NODE ATTRIBUTES:
NSPEC IS RC AT 2
NSPEC IS RC AT 3
DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 12
GGCAT IS PCY AT 69
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E6 C AT 12
ECOUNT IS E17 C AT 69

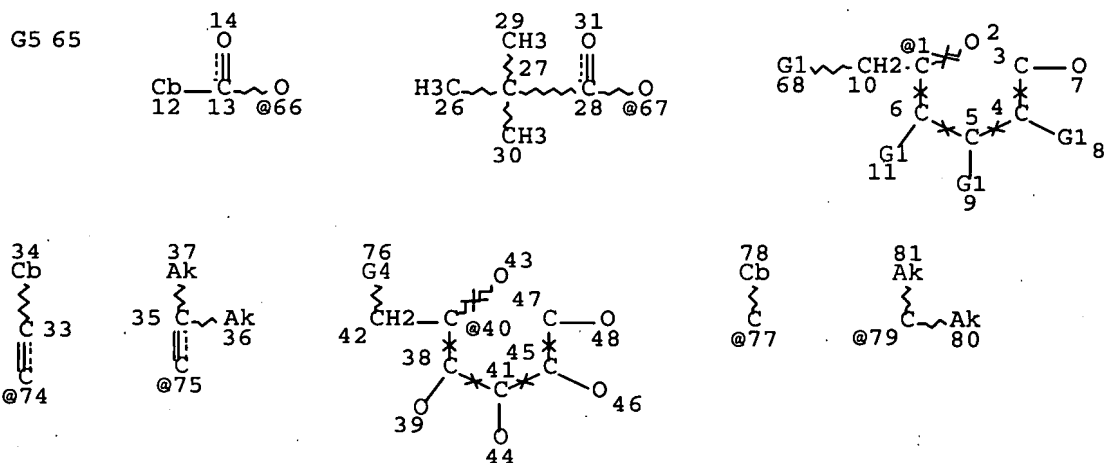
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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
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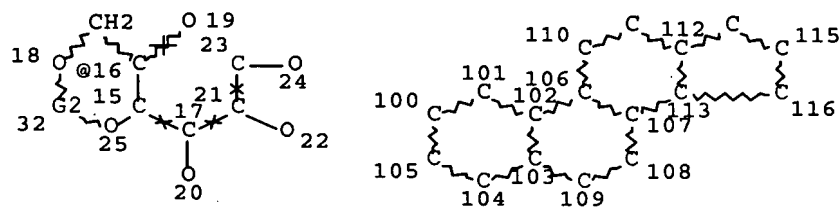
60 ANSWERS

=> d stat que 136
L1 STR



111 114

Page 1-A



Page 2-A

VAR G1=66/OH/67/C(O)CH3

VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

NSPEC IS RC AT 19

NSPEC IS RC AT 23

NSPEC IS RC AT 43

NSPEC IS RC AT 47

CONNECT IS E1 RC AT 36

CONNECT IS E1 RC AT 37

CONNECT IS E1 RC AT 80

CONNECT IS E1 RC AT 81

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

GGCAT IS MCY UNS AT 34

GGCAT IS MCY UNS AT 78

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 12

ECOUNT IS E6 C AT 34

ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:

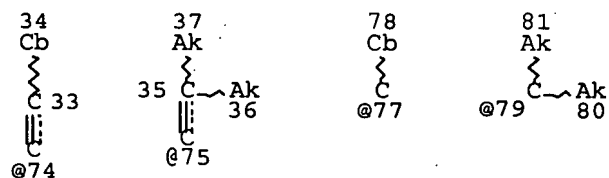
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NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

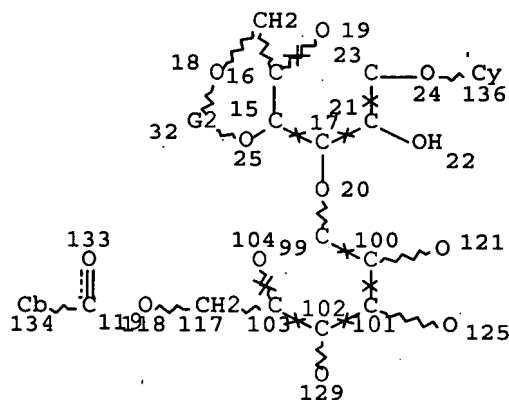
L2 7869 SEA FILE=REGISTRY SSS FUL L1

L19 STR



135

Page 1-A



Page 2-A

VAR G2=75/74/79/77

NODE ATTRIBUTES:

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NSPEC	IS	RC	AT	99
NSPEC	IS	RC	AT	104
CONNECT	IS	E1	RC	AT 36
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DEFAULT	MLEVEL	IS	ATOM	

10/563,743

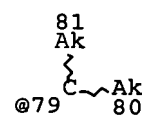
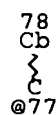
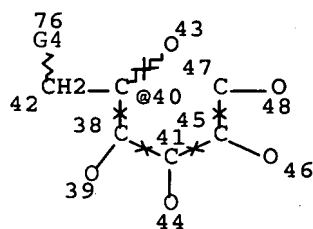
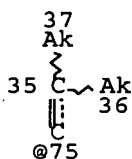
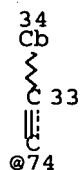
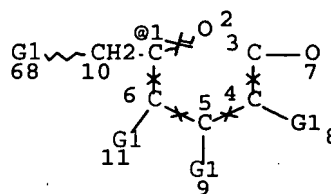
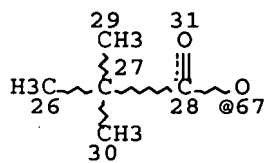
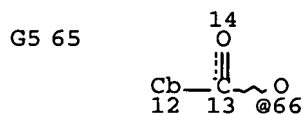
GGCAT IS MCY UNS AT 34
 GGCAT IS MCY UNS AT 78
 GGCAT IS MCY UNS AT 134
 GGCAT IS PCY AT 136
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E6 C AT 34
 ECOUNT IS E6 C AT 78
 ECOUNT IS E6 C AT 134
 ECOUNT IS M17 C AT 136

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE
 L36 1 SEA FILE=REGISTRY SUB=L2 SSS FUL L19

100.0% PROCESSED 78 ITERATIONS 1 ANSWERS
 SEARCH TIME: 00.00.01

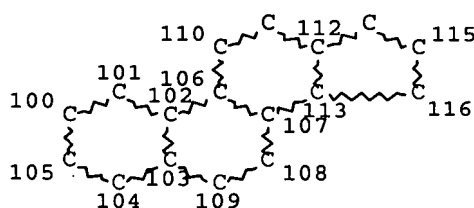
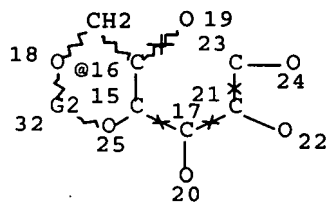
=> d stat que 138
 L1 STR



99

111 114

Page 1-A



Page 2-A
 VAR G1=66/OH/67/C(O)CH3

10/563,743

VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

NSPEC IS RC AT 19

NSPEC IS RC AT 23

NSPEC IS RC AT 43

NSPEC IS RC AT 47

CONNECT IS E1 RC AT 36

CONNECT IS E1 RC AT 37

CONNECT IS E1 RC AT 80

CONNECT IS E1 RC AT 81

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

GGCAT IS MCY UNS AT 34

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DEFAULT ECLEVEL IS LIMITED

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ECOUNT IS E6 C AT 34

ECOUNT IS E6 C AT 78

GRAPH ATTRIBUTES:

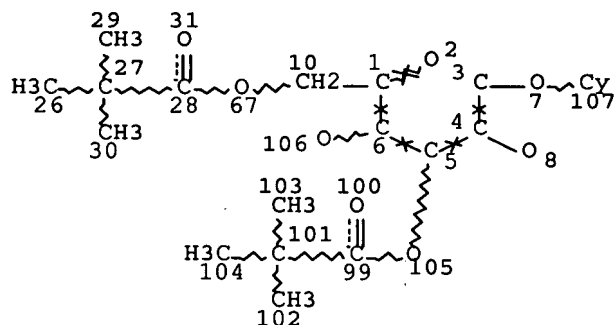
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

L2 7869 SEA FILE=REGISTRY SSS FUL L1

L20 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY AT 107

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M17 C AT 107

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

L38 73 SEA FILE=REGISTRY SUB=L2 SSS FUL L20

10/563,743

100.0% PROCESSED 87 ITERATIONS
SEARCH TIME: 00.00.01

73 ANSWERS

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 17:40:01 ON 24 JUL 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 24 Jul 2007 VOL 147 ISS 5

FILE LAST UPDATED: 23 Jul 2007 (20070723/ED)

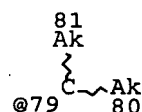
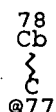
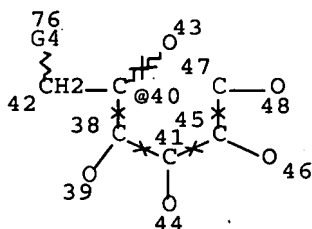
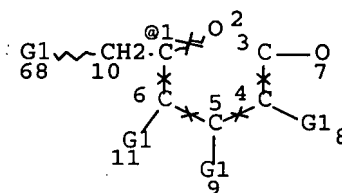
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

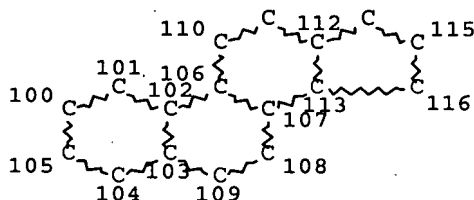
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d stat que 1123

L39	2	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	CHACOTRIOSE?
L40	3	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	SOLATRIOSE?
L41	11836	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L39 OR ?TRIOSE?/BI
L42	11835	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L40 OR ?TRIOSE?/BI
L43	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L41 (L) STEROID#/OBI
L44	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L42 (L) STEROID#/OBI
L45	27601	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	GLYCOSYLATION+OLD,NT/CT
L46	571499	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STEROIDS+OLD,NT/CT
L47	1054	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L45 AND L46
L48	7	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND (L41 OR L42)
L49	776	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	TRISACCHARIDES/CT
L50	5	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND L49
L51	16	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L43 OR L44 OR L48 OR L50
L116	299	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	LAWSON C?/AU
L117	3779	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	WEYMOUTH-WILSON A?/AU OR WILSON A?/AU OR WEYMOUTH A?/AU
L118	3	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L116 AND L117
L119	9	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L51 AND (1840-2004)/PRY, PY,AY
L123	7	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L119 NOT L118



111 114



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VAR G1=66/OH/67/C(O)CH3
VAR G2=75/74/79/77
VAR G4=OH/67
VAR G5=1/16/40
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NSPEC	IS	RC	AT	2
NSPEC	IS	RC	AT	3
NSPEC	IS	RC	AT	19
NSPEC	IS	RC	AT	23
NSPEC	IS	RC	AT	43
NSPEC	IS	RC	AT	47
CONNECT	IS	E1	RC AT	36
CONNECT	IS	E1	RC AT	37
CONNECT	IS	E1	RC AT	80
CONNECT	IS	E1	RC AT	81

GGCAT	IS	MCY	UNS	AT	12
GGCAT	IS	MCY	UNS	AT	34
GGCAT	IS	MCY	UNS	AT	78

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ECOUNT  IS E6 C  AT  12
ECOUNT  IS E6 C  AT  34
ECOUNT  IS E6 C  AT  78

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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

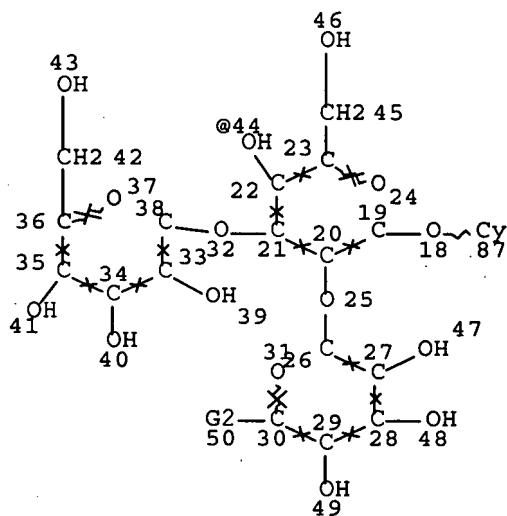
NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

L2 7869 SEA FILE=REGISTRY SSS FUL L1

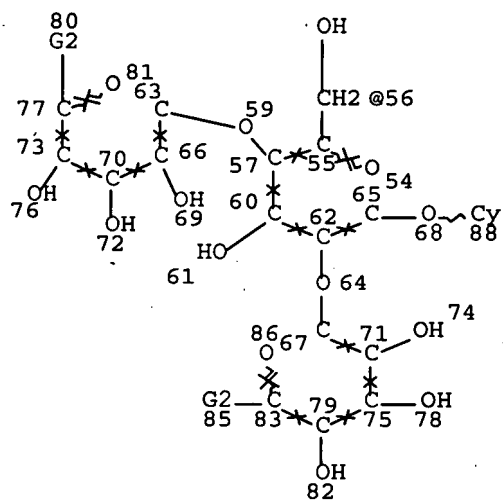
L5 STR

G1 51 Ak@52 Cy@53



58

Page 1-A



Page 2-A

VAR G1=44/56

VAR G2=52/53

NODE ATTRIBUTES:

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NSPEC	IS	RC	AT	26
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NSPEC	IS	RC	AT	37

NSPEC IS RC AT 38
 NSPEC IS RC AT 54
 NSPEC IS RC AT 63
 NSPEC IS RC AT 65
 NSPEC IS RC AT 67
 NSPEC IS RC AT 81
 NSPEC IS RC AT 86
 CONNECT IS E1 RC AT 52
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 53
 GGCAT IS PCY AT 87
 GGCAT IS PCY AT 88
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M17 C AT 87
 ECOUNT IS M17 C AT 88

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

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 L26 400 SEA FILE=REGISTRY ABB=ON PLU=ON 9614.3/RID
 L32 254 SEA FILE=REGISTRY SUB=L2 SSS FUL L5
 L39 2 SEA FILE=REGISTRY ABB=ON PLU=ON CHACOTRIOSE?
 L40 3 SEA FILE=REGISTRY ABB=ON PLU=ON SOLATRIOSE?
 L41 11836 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR ?TRIOSE?/BI
 L42 11835 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 OR ?TRIOSE?/BI
 L43 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L41 (L) STEROID#/OBI
 L44 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 (L) STEROID#/OBI
 L45 27601 SEA FILE=HCAPLUS ABB=ON PLU=ON GLYCOSYLATION+OLD,NT/CT

 L46 571499 SEA FILE=HCAPLUS ABB=ON PLU=ON STEROIDS+OLD,NT/CT
 L47 1054 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND L46
 L48 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND (L41 OR L42)
 L49 776 SEA FILE=HCAPLUS ABB=ON PLU=ON TRISACCHARIDES/CT
 L50 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND L49
 L51 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L44 OR L48 OR
 L50
 L106 243 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 (L) PREP/RL
 L107 57 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND (L24 OR L26)
 L116 299 SEA FILE=HCAPLUS ABB=ON PLU=ON LAWSON C?/AU
 L117 3779 SEA FILE=HCAPLUS ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
 OR WILSON A?/AU OR WEYMOUTH A?/AU
 L118 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 AND L117
 L119 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND (1840-2004)/PRY,
 PY,AY
 L120 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L107 AND (1840-2004)/PRY
 ,PY,AY
 L124 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 NOT (L118 OR L119)

Preparation

=> d ibib ed abs hitstr l124 1-50

L124 ANSWER 1 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1079725 HCAPLUS Full-text

DOCUMENT NUMBER: 145:425745

 TITLE: Composition for inhibiting liver cancer
 containing α -solanine or α -tomatine

10/563,743

as glycoalkaloid produced from potato or tomato
capable of inhibiting liver cancer without
side-effects on normal cells

INVENTOR(S): Lee, Kap Rang; Kozukue, Nobuyuki; Han, Jae Sook
PATENT ASSIGNEE(S): Yeungnam Educational Foundation, S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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KR 2006023400	A	20060314	KR 2004-72233	200409 09

PRIORITY APPLN. INFO.: <--
KR 2004-72233
200409
09

ED Entered STN: 17 Oct 2006

AB A composition for inhibiting liver cancer containing α -solanine or α -tomatine as glycoalkaloid produced from potato or tomato is provided to selectively inhibit liver cancer cells without side-effects on normal cells. The composition for inhibiting liver cancer contains α -solanine or α -tomatine as glycoalkaloid as an active ingredient, wherein the α -solanine or α -tomatine is extracted from potato or tomato with organic solvent such as chloroform and methanol or is extracted by aluminum oxide column chromatog.

IT 17406-45-0P, α -Tomatine 20562-02-1P,
 α -Solanine

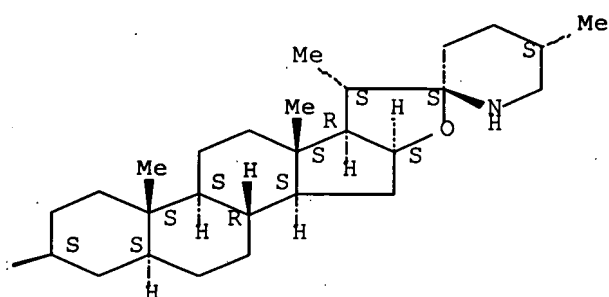
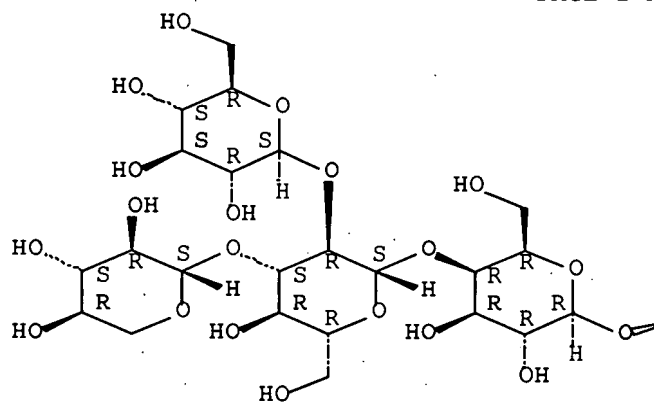
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(composition for inhibiting liver cancer containing alpha-solanine or alpha-tomatine as glycoalkaloid produced from potato or tomato capable of inhibiting liver cancer without side-effects on normal cells)

RN 17406-45-0 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,5 α ,22 β ,25S) -
spirosolan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(CA INDEX NAME)

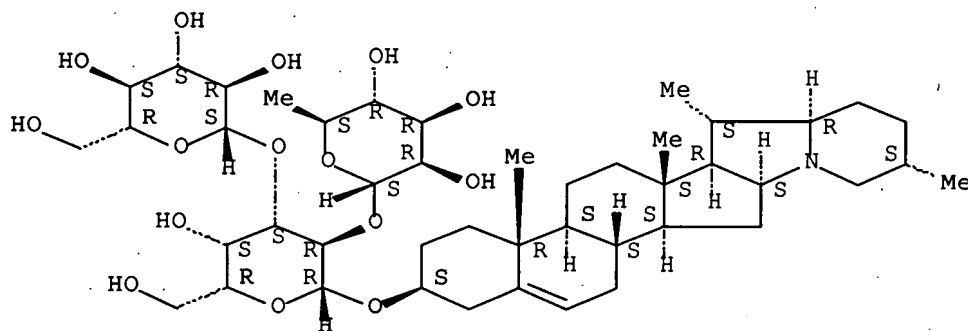
Absolute stereochemistry.



RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 2 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1149313 HCAPLUS Full-text

DOCUMENT NUMBER: 143:392939

TITLE: Water-soluble extract from plant of solanum
genus, its preparation method and pharmaceutical
composition

INVENTOR(S): Kuo, Kuo Hua

PATENT ASSIGNEE(S): G and E Herbal Biotechnology Co., Ltd., Taiwan

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 53
pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1565473	A	20050119	CN 2003-149440	200306 20

PRIORITY APPLN. INFO.:

<--
CN 2003-149440200306
20

ED Entered STN: 27 Oct 2005

AB The invention relates to a water-soluble extract from plant of Solanum genus, its preparation method and pharmaceutical composition. The extract contains at least 60-90% of solasonine and solamargine. The preparation method comprises hydrolyzing with acid, precipitating with alkali, and purifying with solvents such as chloroform, alc. and water. The prepared water-soluble extract can be directly dissolved in pure water or water with pH 7 without addition of any other solvent and/or cosolvent to obtain a yellow clear aqueous solution with the solubility of 2-20 mg/mL or above. The invention also discloses a pharmaceutical composition containing above water-soluble extract as the active ingredient for inhibiting the growth of tumor/cancer cells, especially cells of liver, lung and breast cancers.

IT 19121-58-5P, Solasonine 20311-51-7P, Solamargine

RL: PAC (Pharmacological activity); PUR (Purification or recovery);

THU (Therapeutic use); BIOL (Biological study); PREP

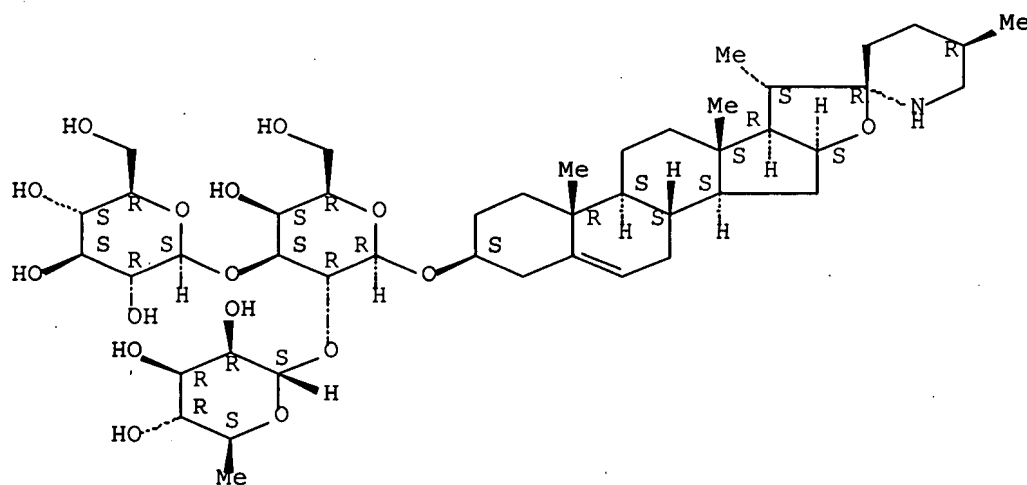
(Preparation); USES (Uses)

(water-soluble extract from plant of solanum genus, its preparation method and pharmaceutical composition)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

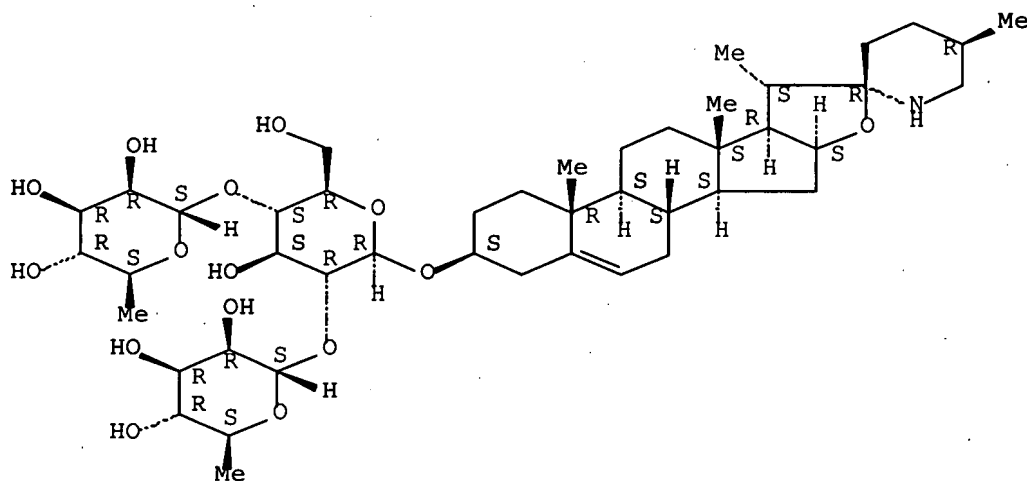
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 3 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:559894 HCAPLUS Full-text

DOCUMENT NUMBER: 143:209077

TITLE: Purification of solasodine and preparation of
solasodine organic acid salts useful as
antitumor, antiasthmatic or antiinflammatory
agent

INVENTOR(S): Liu, Liang

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No
pp. given

10/563,743

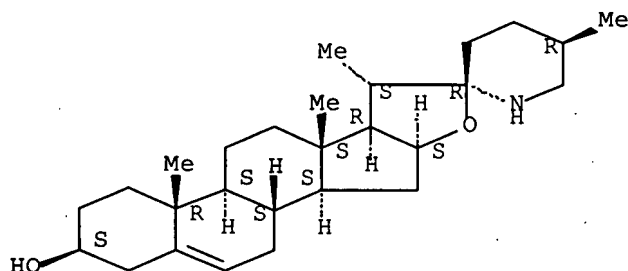
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1546518	A	20041117	CN 2003-10115857	20031129

PRIORITY APPLN. INFO.: <--
CN 2003-10115857
20031129

OTHER SOURCE(S): MARPAT 143:209077
ED Entered STN: 29 Jun 2005
AB Rovides a method for purifying and characterizing solasodine from black nightshade, Australian eggplants and solanum xanthocarpum using extraction dissolvent containing acetic acid. The invention also relates to the preparation of solasodine organic acid salts useful as antitumor, antiasthmatic or antiinflammatory agent.
IT 126-17-0DP, Solasodine, derivs. and salts 126-17-0P
, Solasodine 6106-33-8P, Solasodine hydrochloride 6106-38-3P 6106-40-7P, Solasodine tartrate 14144-05-9P 19121-58-5P 20311-51-7P 73069-19-9P 862286-84-8P 862286-85-9P 862286-86-0P 862286-87-1P 862286-88-2P 862286-89-3P 862286-90-6P 862286-91-7P 862286-92-8P 862286-93-9P 862286-95-1P 862286-96-2P 862286-97-3P 862286-99-5P 862287-01-2P 862287-03-4P 862287-05-6P 862287-07-8P 862287-09-0P 862287-11-4P 862287-13-6P 862287-15-8P 862287-17-0P 862287-19-2P 862287-21-6P 862287-24-9P 862287-25-0P 862287-26-1P 862287-28-3P
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(purification of solasodine and preparation of solasodine organic acid salts useful as antitumor, antiasthmatic or antiinflammatory agent)
RN 126-17-0 HCAPLUS
CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

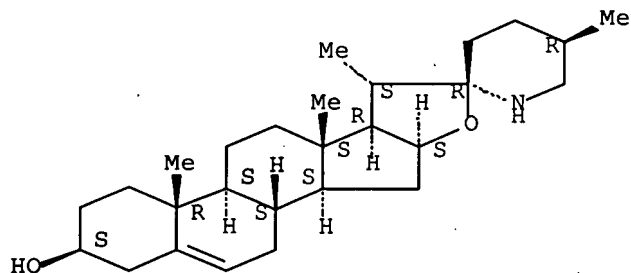


10/563,743

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

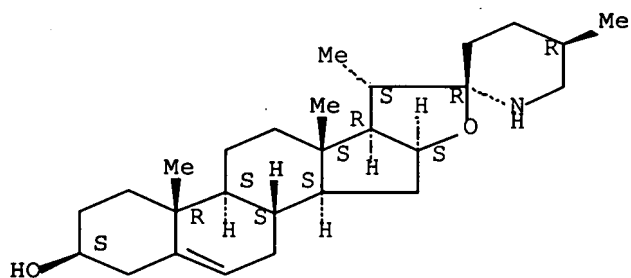
Absolute stereochemistry. Rotation (-).



RN 6106-33-8 HCAPLUS

CN Spirosol-5-en-3-ol, hydrochloride, (3 β ,22 α ,25R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

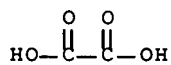
RN 6106-38-3 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, ethanedioate (1:1)
(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 144-62-7

CMF C2 H2 O4

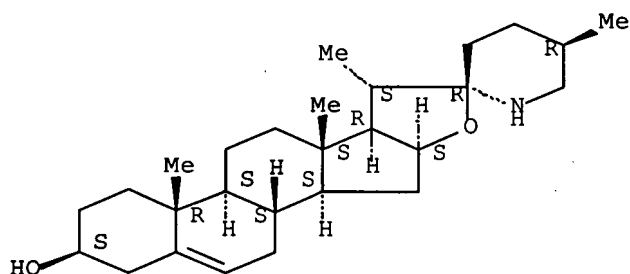


CM 2

10/563,743

CRN 126-17-0
CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

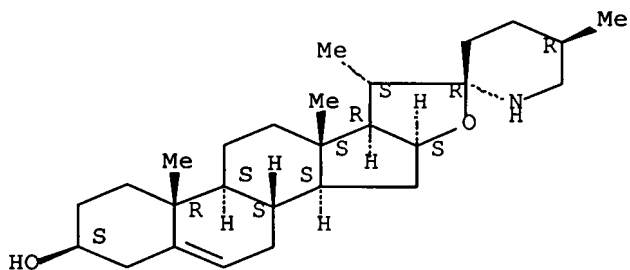


RN 6106-40-7 HCAPLUS
CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0
CMF C27 H43 N O2

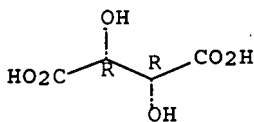
Absolute stereochemistry. Rotation (-).



CM 2

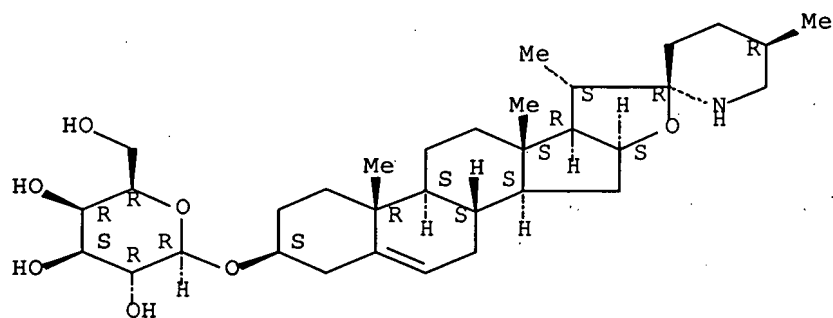
CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



RN 14144-05-9 HCAPLUS
CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl (9CI) (CA INDEX NAME)

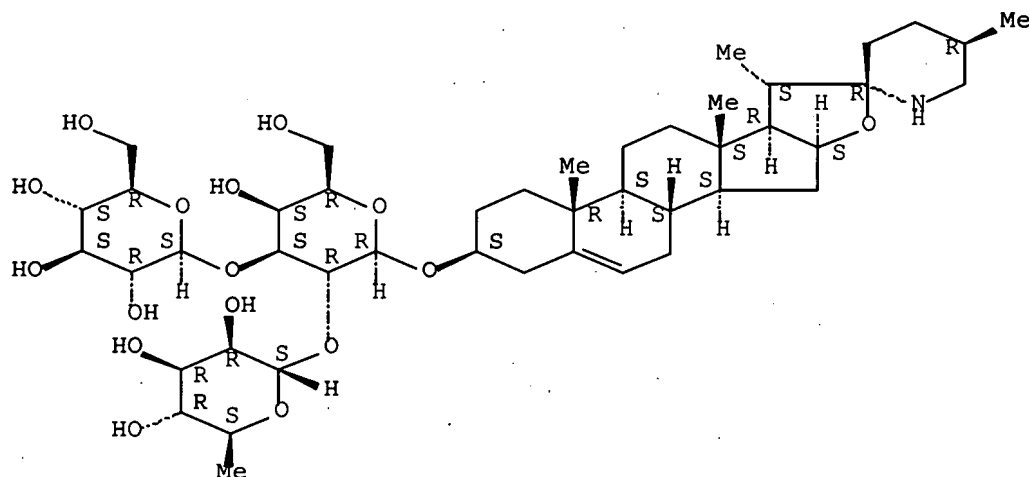
Absolute stereochemistry.



RN 19121-58-5 HCAPLUS

CN β-D-Galactopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→3)]- (CA INDEX NAME)

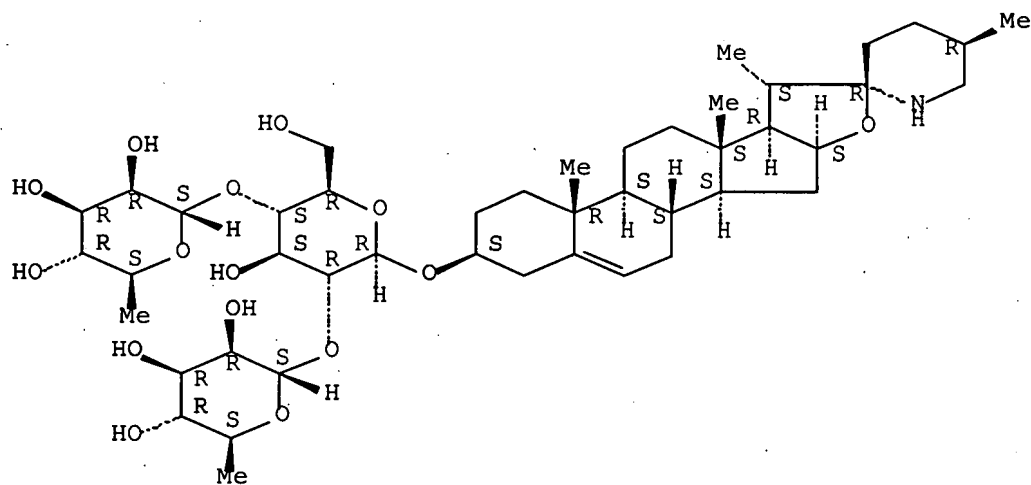
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β-D-Glucopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (CA INDEX NAME)

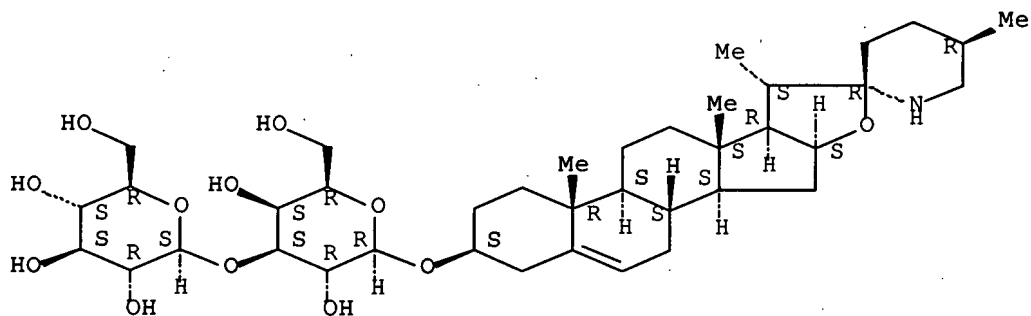
Absolute stereochemistry.



RN 73069-19-9 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 3-O- β -D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 862286-84-8 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, formate (salt) (9CI)
(CA INDEX NAME)

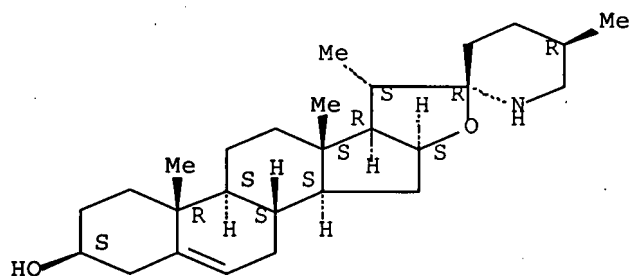
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

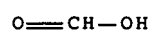
10/563,743



CM 2

CRN 64-18-6

CMF C H2 O2



RN 862286-85-9 HCAPLUS

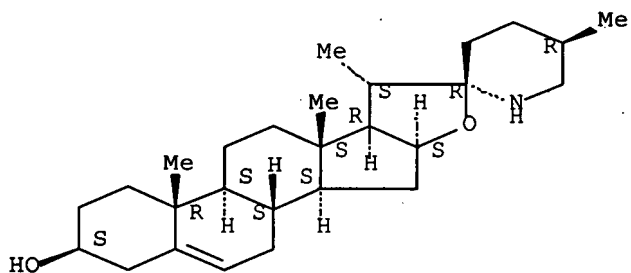
CN Spirosol-5-en-3-ol, (3β,22α,25R)-, hydroxyacetate (salt)
(9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

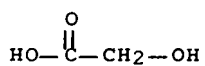
Absolute stereochemistry. Rotation (-).



CM 2

CRN 79-14-1

CMF C2 H4 O3



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RN 862286-86-0 HCAPLUS

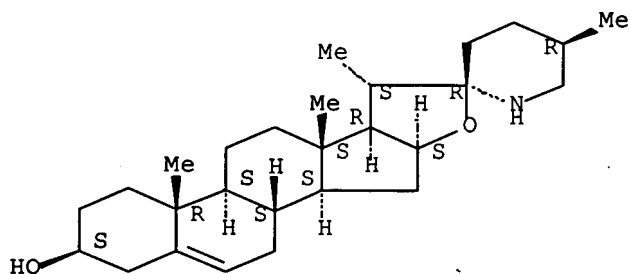
CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, 2-hydroxypropanoate
(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

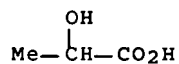
Absolute stereochemistry. Rotation (-).



CM 2

CRN 50-21-5

CMF C3 H6 O3



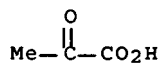
RN 862286-87-1 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, 2-oxopropanoate (salt)
(9CI) (CA INDEX NAME)

CM 1

CRN 127-17-3

CMF C3 H4 O3



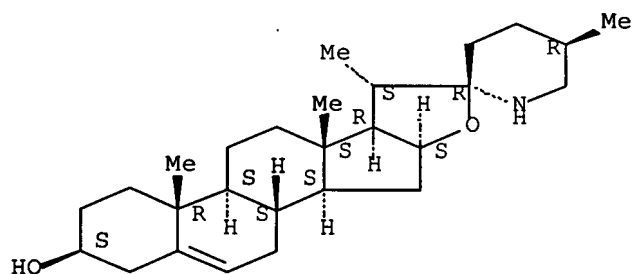
CM 2

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743



RN 862286-88-2 HCAPLUS

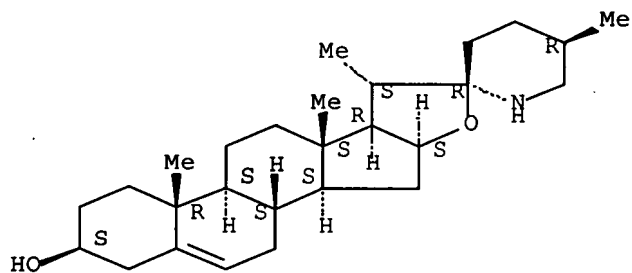
CN Spirosol-5-en-3-ol, (3β,22α,25R)-, benzoate (salt) (9CI)
(CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

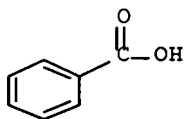
Absolute stereochemistry. Rotation (-).



CM 2

CRN 65-85-0

CMF C7 H6 O2



RN 862286-89-3 HCAPLUS

CN D-Gluconic acid, compd. with (3β,22α,25R)-spirosol-5-en-3-ol (1:1) (9CI) (CA INDEX NAME)

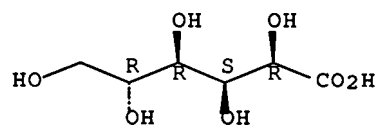
CM 1

CRN 526-95-4

CMF C6 H12 O7

10/563,743

Absolute stereochemistry.

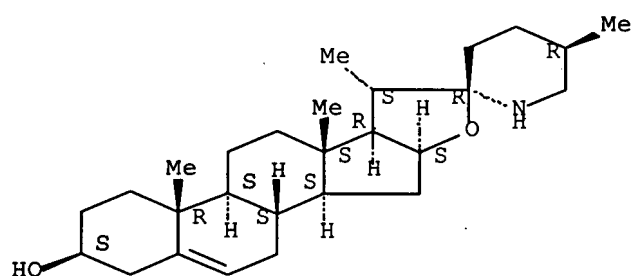


CM 2

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



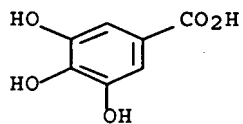
RN 862286-90-6 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, 3,4,5-trihydroxybenzoate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 149-91-7

CMF C7 H6 O5



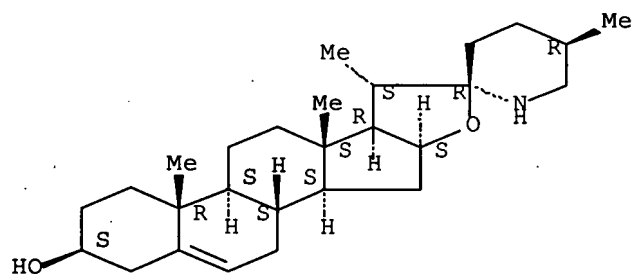
CM 2

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743



RN 862286-91-7 HCAPLUS

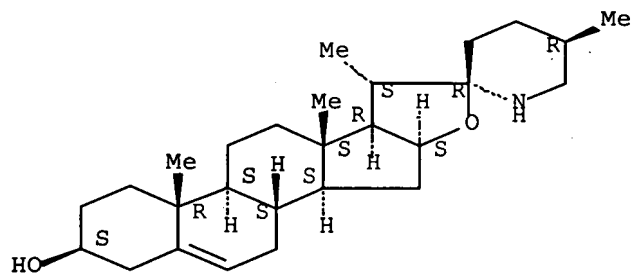
CN L-Methionine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

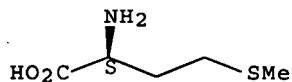


CM 2

CRN 63-68-3

CMF C5 H11 N O2 S

Absolute stereochemistry.



RN 862286-92-8 HCAPLUS

CN L-Asparagine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

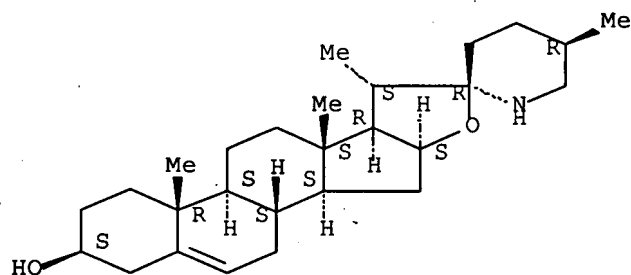
CM 1

CRN 126-17-0

CMF C27 H43 N O2

10/563,743

Absolute stereochemistry. Rotation (-).

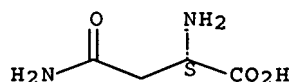


CM 2

CRN 70-47-3

CMF C4 H8 N2 O3

Absolute stereochemistry.



RN 862286-93-9 HCAPLUS

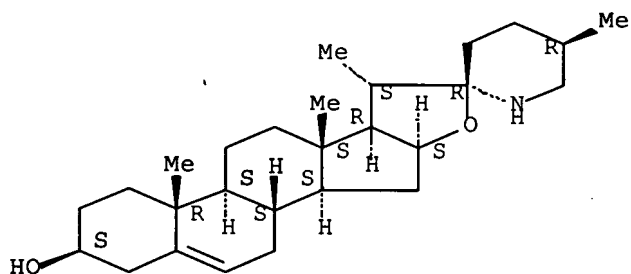
CN L-Glutamine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



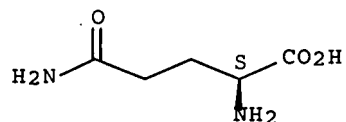
CM 2

CRN 56-85-9

CMF C5 H10 N2 O3

Absolute stereochemistry.

10/563,743



RN 862286-95-1 HCAPLUS

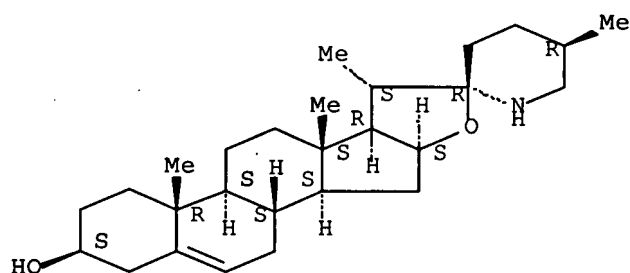
CN L-Tryptophan, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

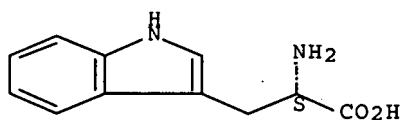


CM 2

CRN 73-22-3

CMF C11 H12 N2 O2

Absolute stereochemistry.



RN 862286-96-2 HCAPLUS

CN L-Lysine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

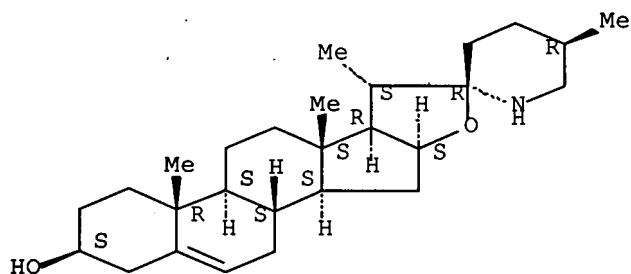
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743

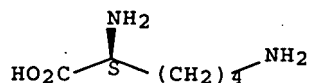


CM 2

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 862286-97-3 HCAPLUS

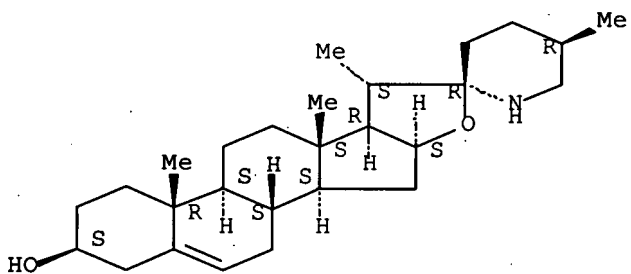
CN L-Arginine, compd. with (3β,22α,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



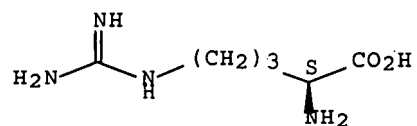
CM 2

CRN 74-79-3

CMF C6 H14 N4 O2

Absolute stereochemistry.

10/563,743



RN 862286-99-5 HCAPLUS

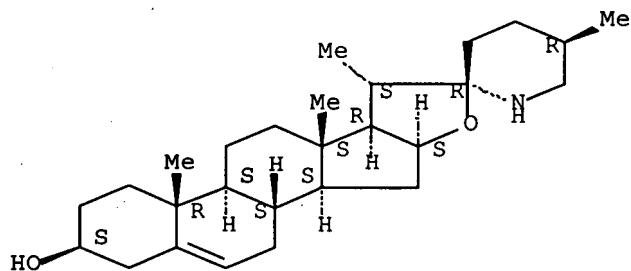
CN L-Histidine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

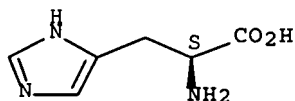


CM 2

CRN 71-00-1

CMF C6 H9 N3 O2

Absolute stereochemistry. Rotation (-).



RN 862287-01-2 HCAPLUS

CN Glycine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

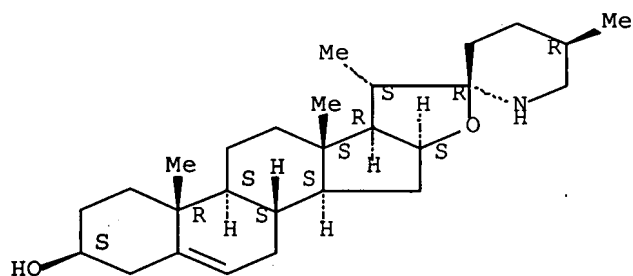
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

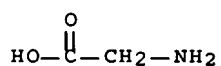
10/563,743



CM 2

CRN 56-40-6

CMF C2 H5 N O2



RN 862287-03-4 HCAPLUS

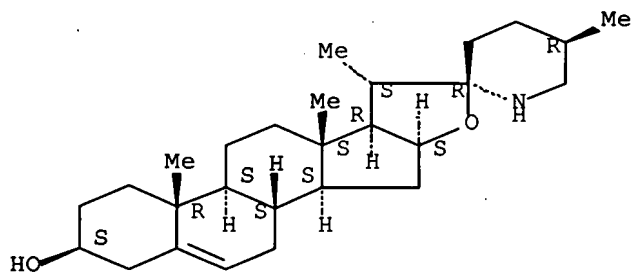
CN L-Alanine, compd. with (3β,22α,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



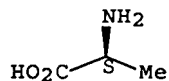
CM 2

CRN 56-41-7

CMF C3 H7 N O2

Absolute stereochemistry. Rotation (+).

10/563,743



RN 862287-05-6 HCAPLUS

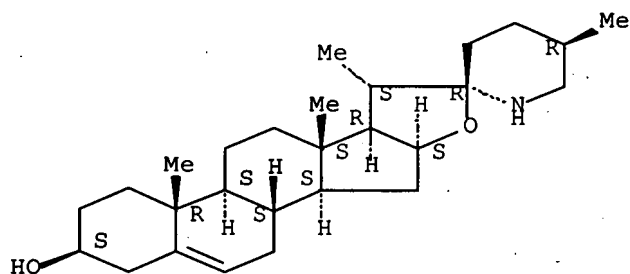
CN L-Valine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

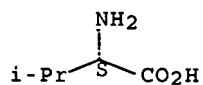


CM 2

CRN 72-18-4

CMF C5 H11 N O2

Absolute stereochemistry. Rotation (+).



RN 862287-07-8 HCAPLUS

CN L-Leucine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

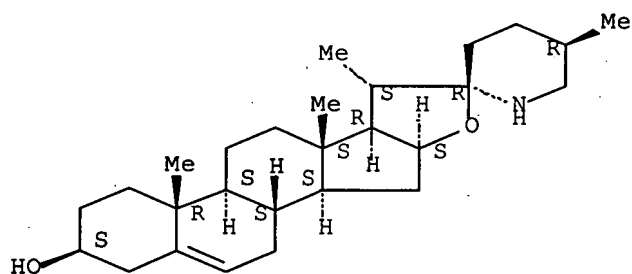
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743

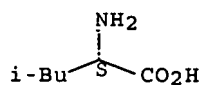


CM 2

CRN 61-90-5

CMF C6 H13 N O2

Absolute stereochemistry. Rotation (+).



RN 862287-09-0 HCAPLUS

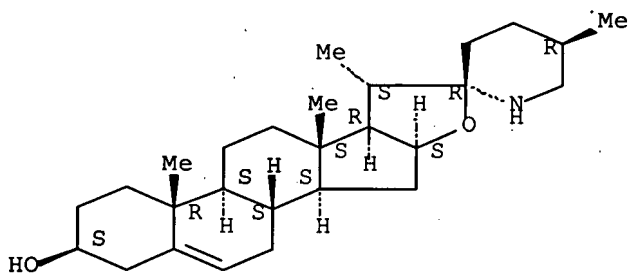
CN L-Isoleucine, compd. with (3β,22α,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



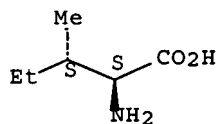
CM 2

CRN 73-32-5

CMF C6 H13 N O2

Absolute stereochemistry.

10/563,743



RN 862287-11-4 HCAPLUS

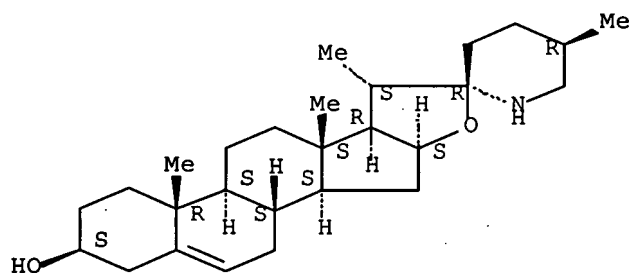
CN L-Phenylalanine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

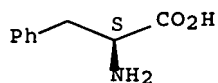


CM 2

CRN 63-91-2

CMF C9 H11 N O2

Absolute stereochemistry. Rotation (-).



RN 862287-13-6 HCAPLUS

CN L-Proline, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol (1:1) (9CI) (CA INDEX NAME)

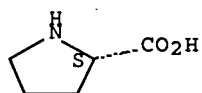
CM 1

CRN 147-85-3

CMF C5 H9 N O2

Absolute stereochemistry. Rotation (-).

10/563,743

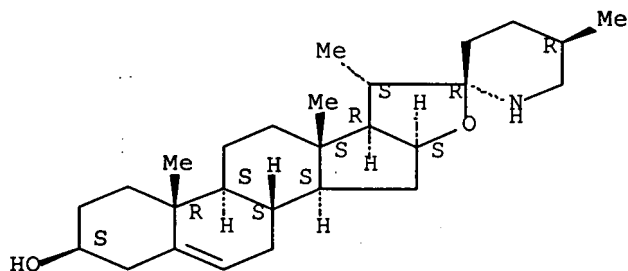


CM 2

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



RN 862287-15-8 HCAPLUS

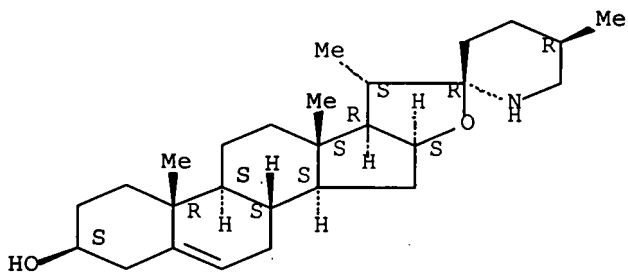
CN L-Serine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

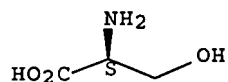


CM 2

CRN 56-45-1

CMF C3 H7 N O3

Absolute stereochemistry. Rotation (-).



RN 862287-17-0 HCAPLUS

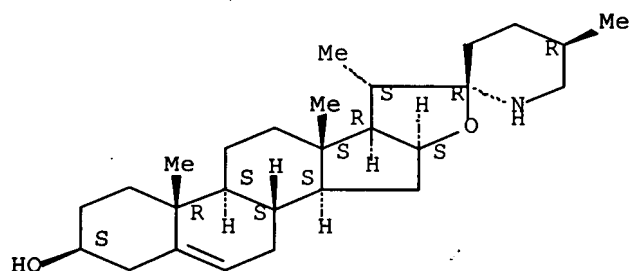
CN L-Threonine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

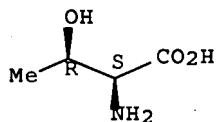


CM 2

CRN 72-19-5

CMF C4 H9 N O3

Absolute stereochemistry.



RN 862287-19-2 HCAPLUS

CN L-Tyrosine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

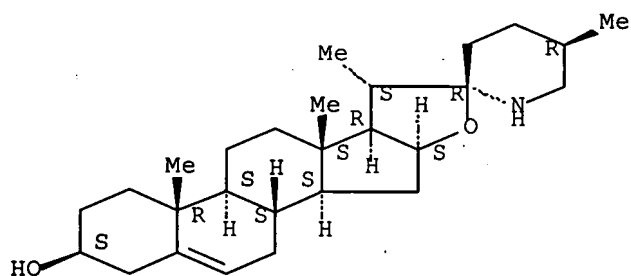
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743

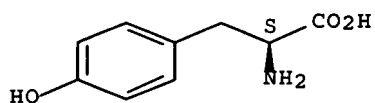


CM 2

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



RN 862287-21-6 HCAPLUS

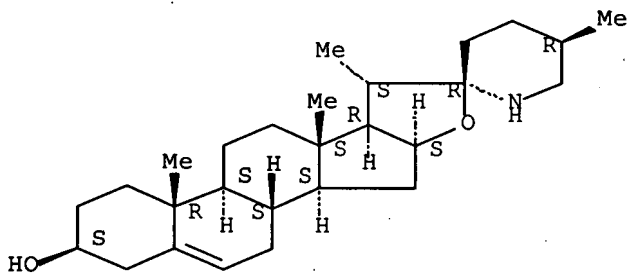
CN L-Cysteine, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



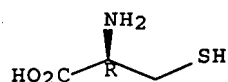
CM 2

CRN 52-90-4

CMF C3 H7 N O2 S

Absolute stereochemistry.

10/563,743



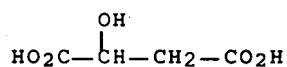
RN 862287-24-9 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, hydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 6915-15-7

CMF C4 H6 O5

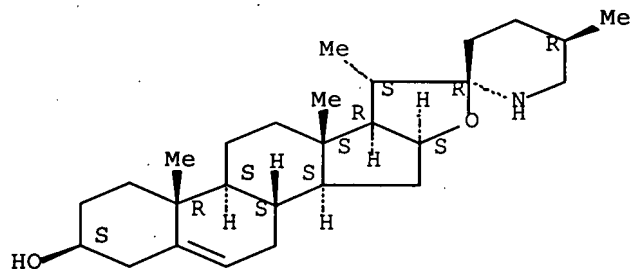


CM 2

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



RN 862287-25-0 HCAPLUS

CN L-Aspartic acid, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol (1:1) (9CI) (CA INDEX NAME)

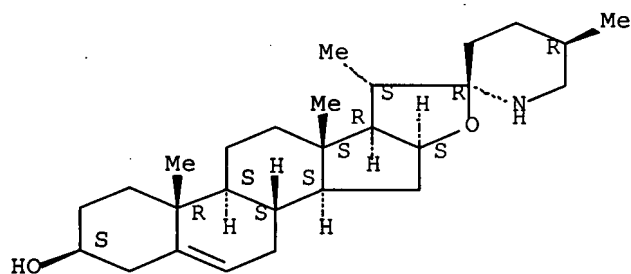
CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).

10/563,743

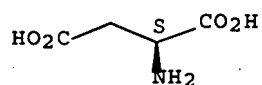


CM 2

CRN 56-84-8

CMF C4 H7 N O4

Absolute stereochemistry. Rotation (+).



RN 862287-26-1 HCAPLUS

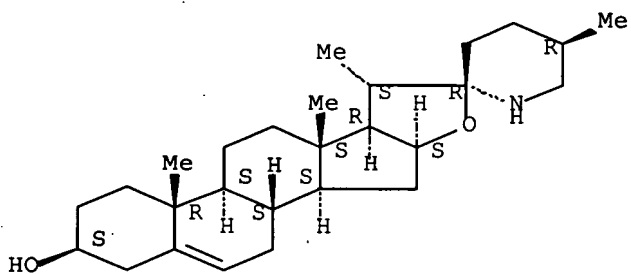
CN L-Glutamic acid, compd. with (3 β ,22 α ,25R)-spirosol-5-en-3-ol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

Absolute stereochemistry. Rotation (-).



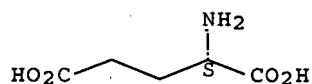
CM 2

CRN 56-86-0

CMF C5 H9 N O4

Absolute stereochemistry.

10/563,743



RN 862287-28-3 HCAPLUS

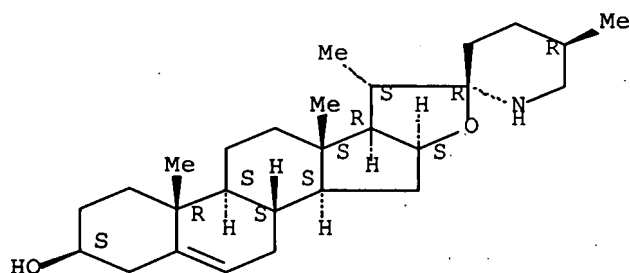
CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 126-17-0

CMF C27 H43 N O2

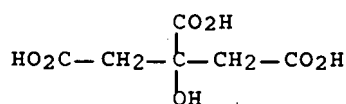
Absolute stereochemistry. Rotation (-).



CM 2

CRN 77-92-9

CMF C6 H8 O7



L124 ANSWER 4 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:190069 HCAPLUS Full-text

DOCUMENT NUMBER: 141:276327

TITLE: Transformed root cultures of Solanum dulcamara and production of secondary metabolites

AUTHOR(S): Marzouk, A.; Gray, A. I.; Deans, S. G.

CORPORATE SOURCE: Aromatic and Medicinal Plant Group, Avian Science Research Centre, SAC, Ayr, KA6 5HW, UK

SOURCE: Poisonous Plants and Related Toxins, [Papers presented at the International Symposium of Poisonous Plants], 6th, Glasgow, United Kingdom, Aug., 2001 (2004), Meeting Date 2001, 167-174. Editor(s): Acamovic, T.; Stewart, C. S.; Pennycott, T. W. CABI Publishing: Wallingford, UK.

10/563,743

CODEN: 69FDPI; ISBN: 0-85199-614-0

DOCUMENT TYPE:

Conference

LANGUAGE:

English

ED Entered STN: 09 Mar 2004

AB The production of two steroid alkaloids from hairy root cultures of *Solanum dulcamara* is described. The first compound (0.055% yield) is an amorphous solid and identified as 3-β-[[O-α-L-rhamnopyranosyl-(1→2)-O-α-L-rhamnopyranosyl-(1→4)]-β-D-glucopyranosyloxy]-22β-spirosol-5-ene (β-solamarine). Compound 2 revealed the same glycosidic moiety, but differences appeared in the chemical shifts for proton and carbon signals in ring F. This compound is suggested to be oxygen-containing furastanol type glycoside.

IT 3671-38-3P, β-Solamarine

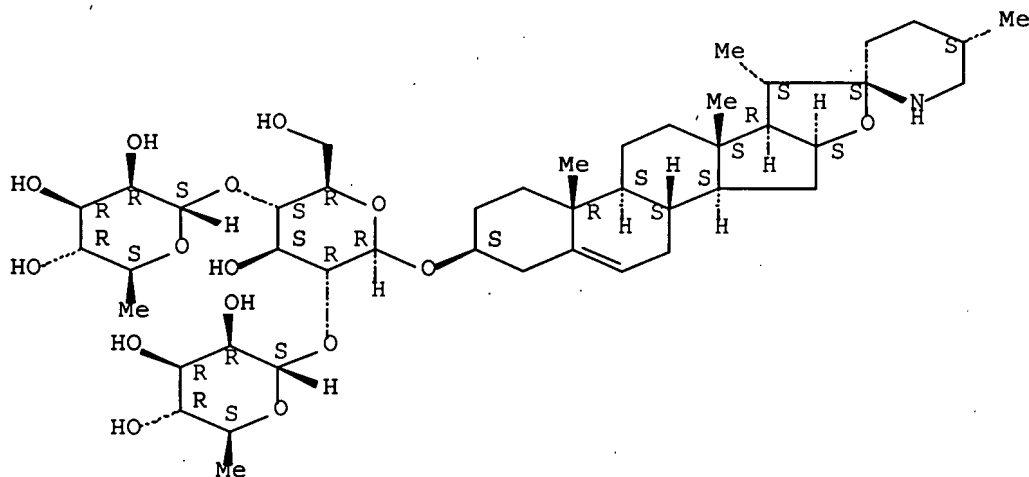
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)

(production of secondary metabolites by hairy root cultures of *Solanum dulcamara*)

RN 3671-38-3 HCAPLUS

CN β-D-Glucopyranoside, (3β,22β,25S)-spirosol-5-en-3-yl
O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

24 THERE ARE 24 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L124 ANSWER 5 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:20695 HCAPLUS Full-text

DOCUMENT NUMBER: 140:76030

TITLE: Method for the extraction, separation, and
purification of triglycoalkaloids from eggplant
fruit

INVENTOR(S): Carter, Stephen; Murray, Paul Edward; Parkin,
John Edward; Dalwadi, Gautam

PATENT ASSIGNEE(S): Solbec Pharmaceuticals, Limited, Australia

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002998	A1	20040108	WO 2003-AU738	20030613
<--				
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2489682	A1	20040108	CA 2003-2489682	20030613
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AU 2003233261	A1	20040119	AU 2003-233261	20030613
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US 2004030109	A1	20040212	US 2003-461737	20030613
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US 6984725	B2	20060110		
EP 1551853	A1	20050713	EP 2003-727026	20030613
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
NZ 537268	A	20050826	NZ 2003-537268	20030613
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PRIORITY APPLN. INFO.:			AU 2002-3263	A 20020628
<--				
			US 2002-392417P	P 20020628
<--				
			WO 2003-AU738	W 20030613
<--				

ED Entered STN: 11 Jan 2004

AB A method for the separation of a triglycoalkaloid is provide in which the triglycoside portion comprises α -L-rhamnopyranosyl-(1 \rightarrow 2gal)-O- β -D-glucopyranosyl-(1 \rightarrow 3gal)- β -D- galactopyranose (or 6-deoxy-a-L-mannopyranosyl-(1 \rightarrow 2)-O- [β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranoside) ('an rhamnose-glucose-galactose triglycoalkaloid') from a triglycoalkaloid in which the triglycoside portion is a-L-rhamnopyranosyl-(1 \rightarrow 2glu)-O-a-L-rhamnopyranosyl-(1 \rightarrow 4glu)- β -D-glucopyranose ('a rhamnose-rhamnose-glucose triglycoalkaloid') in a mixture containing both. The method comprises the following steps: combining the mixture with a portion of alc. solvent; causing or allowing a substantial portion of the rhamnose-rhamnose-glucose triglycoalkaloid to dissolve, thereby generating an alc. solution substantially of the rhamnose-rhamnose- glucose triglycoalkaloid , and a solid substantially comprising the rhamnose-glucose-galactose triglycoalkaloid; and separating the solid substantially comprising the rhamnose-glucose-galactose triglycoalkaloid from the solution substantially of the rhamnose-rhamnose-glucose triglycoalkaloid. Thus the glycoalkaloids solasonine and solamargine were extracted from the green fruit of eggplant and separated based on their solubility in alcs.

IT 19121-58-5P, Solasonine 20311-51-7P, Solamargine

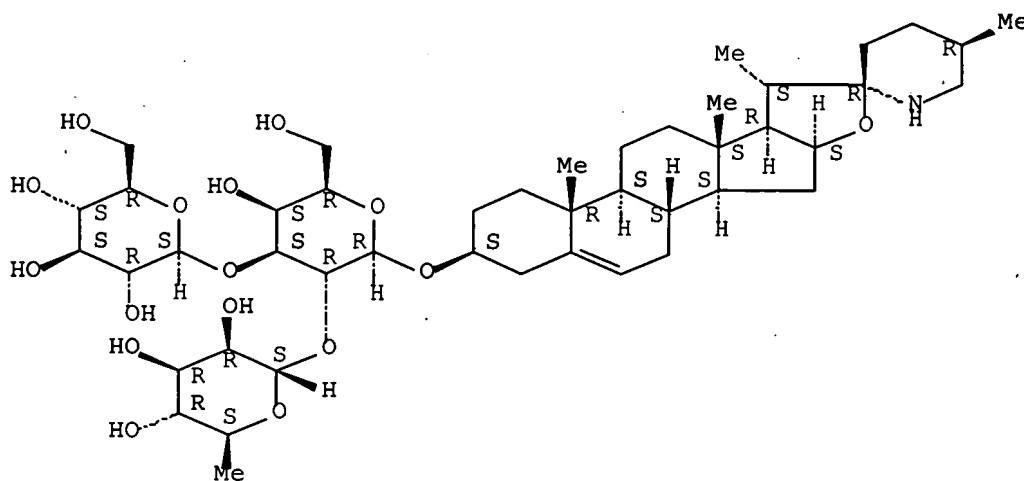
RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(extraction, separation, and purification of triglycoalkaloids from eggplant fruit)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

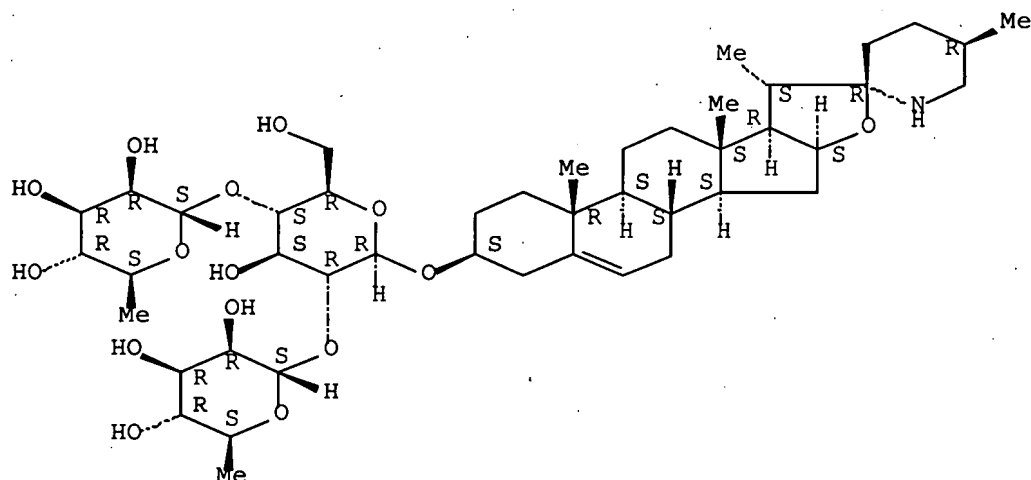
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.

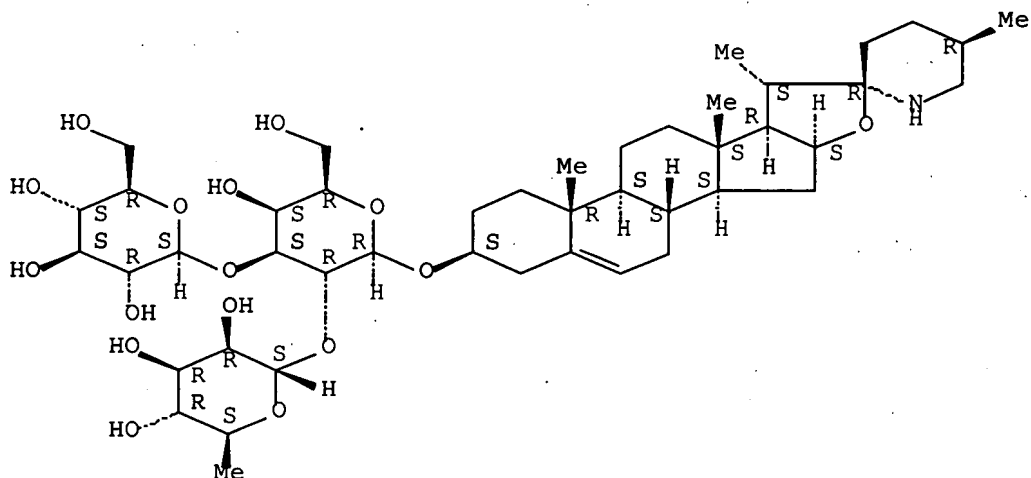


IT 19121-58-5DP, Solasonine, tosyl salts of
 20311-51-7DP, Solamargine, tosyl salts of
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (extraction, separation, and purification of triglycoalkaloids from
 eggplant fruit)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
 glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

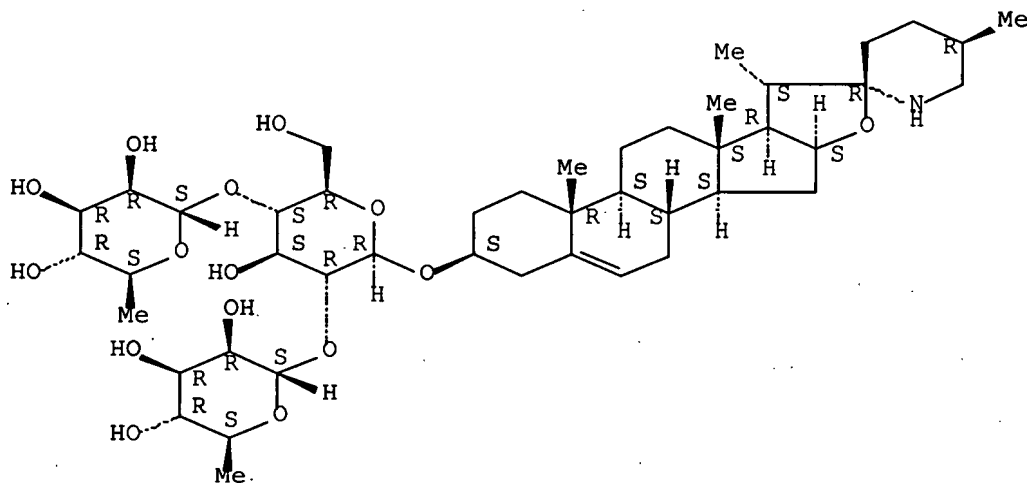
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 6 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:870489 HCAPLUS Full-text

DOCUMENT NUMBER: 139:365135

TITLE: process for the preparation of cyproterone acetate from solasodine

INVENTOR(S): Manosroi, Aranya; Manosroi, Jiradej; Buddhasukh, Duang; Sripalakit, Pattana; Maier, Roland; Werner, Rolf

PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1359154	A1	20031105	EP 2002-9663	20020429
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2482997	A1	20031113	CA 2003-2482997	20030414
<--				
WO 2003092578	A2	20031113	WO 2003-EP3831	20030414

WO 2003092578 A3 20040408
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2003224068 A1 20031117 AU 2003-224068 200304 14

EP 1501858 A2 20050202 EP 2003-720460 200304 14

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 CN 1649891 A 20050803 CN 2003-809778 200304 14

JP 2005523927 T 20050811 JP 2004-500763 200304 14

NZ 536590 A 20060929 NZ 2003-536590 200304 14

NZ 548247 A 20070629 NZ 1947-5482 200304 14

CN 1990499 A 20070704 CN 2007-10001655 200304 14

US 2004024230 A1 20040205 US 2003-423089 200304 25

IN 2004DN03065 A 20070525 IN 2004-DN3065 200410 07

HK 1080867 A1 20070622 HK 2006-100814 200601 18

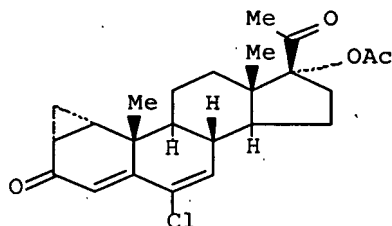
US 2006211873 A1 20060921 US 2006-438193 200605 22

PRIORITY APPLN. INFO.:

<--
 EP 2002-9663 A
 200204
 29
 <--
 US 2002-383305P P
 200205
 23
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 CN 2003-809778 A3
 200304
 14
 <--
 WO 2003-EP3831 W
 200304
 14
 <--
 US 2003-423089 B1
 200304
 25
 <--

ED Entered STN: 06 Nov 2003

GI



I

AB The present invention relates to improved methods for synthesizing cyproterone acetate (I) from solasonine (II). Solasonine, extracted from *Solanum laciniatum* was hydrolyzed to provide II which upon a multistep reaction sequence afforded I. The key step involve biotransformation of chlormadinone acetate to delmadione acetate by *Arthrobacter simplex* or *Bacillus sphaericus*. The methods of the invention are shorter as those of the prior art and therefore more economic.

IT 19121-58-5P, Solasonine

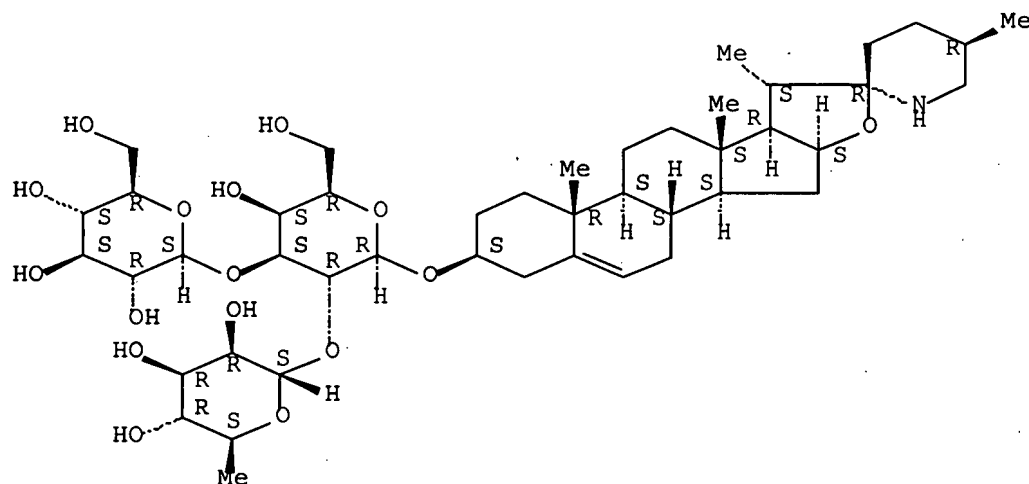
RL: NPO (Natural product occurrence); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent)

(isolation of solasonine from *Solanum laciniatum* in preparation of cyproterone acetate)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 126-17-0P, Solasodine 4860-15-5P,

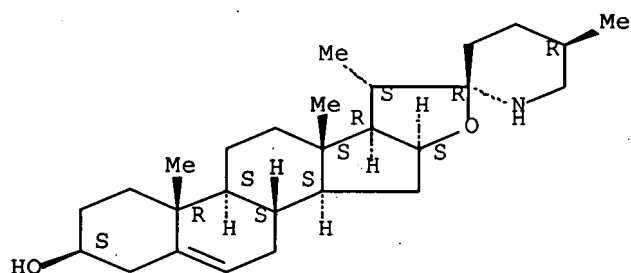
O,N-Diacetylsolasodine

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyproterone acetate from solasodine)

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R) - (CA INDEX NAME)

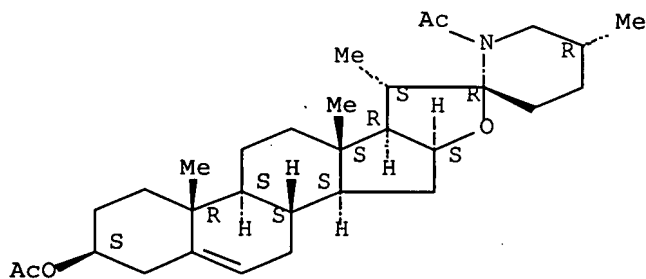
Absolute stereochemistry. Rotation (-).



RN 4860-15-5 HCAPLUS

CN Spirosol-5-en-3-ol, 28-acetyl-, acetate (ester),
(3 β ,22 α ,25R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L124 ANSWER 7 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:282585 HCAPLUS Full-text
DOCUMENT NUMBER: 138:292702
TITLE: Extraction of glycoalkaloids from Solanum
sodomeum
INVENTOR(S): Lawson, Chris
PATENT ASSIGNEE(S): Glycomed Sciences Limited, Australia
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003029269	A1	20030410	WO 2002-EP10946	200209 30
<--				
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2461928	A1	20030410	CA 2002-2461928	200209 30
<--				
AU 2002342778	A1	20030414	AU 2002-342778	200209 30
<--				
EP 1430073	A1	20040623	EP 2002-779442	200209 30

EP 1430073 B1 20051207
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 JP 2005508345 T 20050331 JP 2003-532515

200209
 30

AT 312118 T 20051215 AT 2002-779442

200209
 30

ES 2253566 T3 20060601 ES 2002-2779442

200209
 30

US 2004249138 A1 20041209 US 2004-490333

200403
 22

PRIORITY APPLN. INFO.:

EP 2001-123458 A

200109
 28

WO 2002-EP10946 W

200209
 30

ED Entered STN: 11 Apr 2003

AB The present invention relates to an improved extraction process for an alkaloid glycoside extract from the species Solanum. Thus, the fruit of Solanum sodomium were dried, pulverized into a powder and extracted four times with methanol. The first three exts. were pooled and the solvent was removed by evaporation. The dried extract was then dissolved in 3% (volume/volume) acetic acid and filtered. The filtrate was precipitated three times with ammonia and the ppts. were recovered by centrifugation and pooled. The precipitate was dissolved in ammonium acetate (pH 4.5), polish filtered, frozen and freeze-dried. The freeze-dried extract was approx. 1.14% of the weight of the original dried fruit and contained 33% solasonine, 40.1% solamargine but no trace of a contaminating diglycoside. The freeze-dried extract was then dissolved in methanol and further purified by silica gel chromatog. using a four step methanol:acetone gradient. The appropriate glycoalkaloid containing fractions were collected, pooled, and freeze-dried. The freeze-dried fractions were dissolved in 3% acetic acid, precipitated with ammonia. This precipitate was washed, redissolved in acetic acid and freeze-dried. This final extract consisted of 40.5% solasonine and 55.3% solamargine.

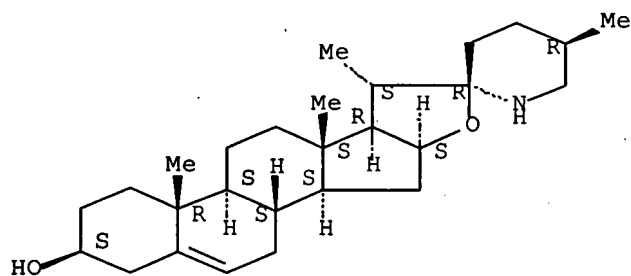
IT 126-17-0D, Solasodine, di- and triglycosides of
 RL: NPO (Natural product occurrence); BIOL (Biological study); OCCU
 (Occurrence)

(extraction of glycoalkaloids from Solanum sodomium)

RN 126-17-0 HCAPLUS

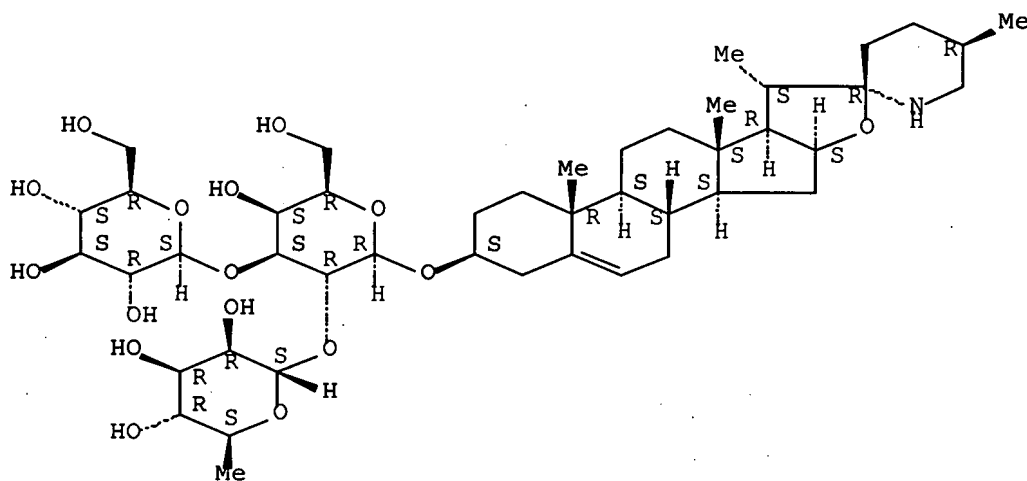
CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



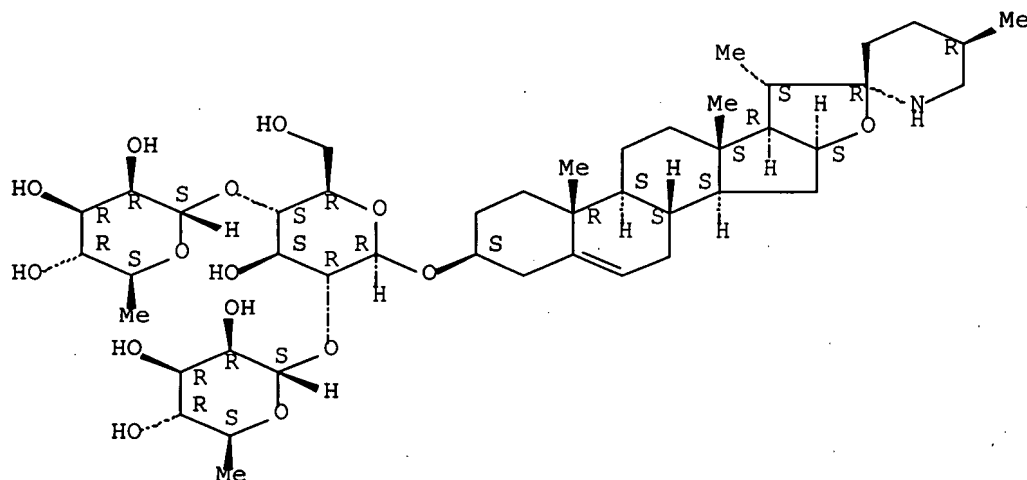
IT 19121-58-5P, Solasonine 20311-51-7P, Solamargine
 RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (extraction of glycoalkaloids from Solanum sodomaeum)
 RN 19121-58-5 HCAPLUS
 CN β-D-Galactopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→3)]- (CA INDEX NAME)

Absolute stereochemistry.



RN 20311-51-7 HCAPLUS
 CN β-D-Glucopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 8 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:173624 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:205294
 TITLE: Synthesis of solanum glycosides via stereoselective β -glycosylation of solasodine
 INVENTOR(S): Shahid, Mohammed
 PATENT ASSIGNEE(S): Glycomed Sciences Limited, Australia
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003018604	A1	20030306	WO 2002-EP9349	20020821

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002336998	A1	20030310	AU 2002-336998	20020821
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10/563,743

EP 1421100

A1

20040526

EP 2002-772183

200208

21

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
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BR 2002012397

A

20041019

BR 2002-12397

200208

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JP 2005502671

T

20050127

JP 2003-523263

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US 2004259814

A1

20041223

US 2004-783821

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PRIORITY APPLN. INFO.:

EP 2001-120144

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WO 2002-EP9349

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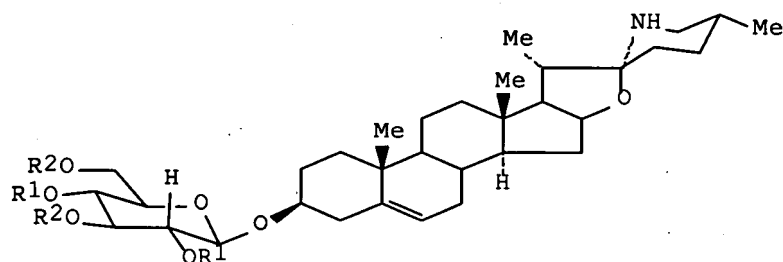
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OTHER SOURCE(S):

CASREACT 138:205294; MARPAT 138:205294

ED Entered STN: 07 Mar 2003

GI



I

AB The present invention relates to the chemical synthesis of solanum glycosides I, wherein each of R1 and R2 are the same or different and represent conventional carbohydrate protecting groups, in particular to the synthesis of solamargine as well as to novel β -monosaccharide intermediate compds. via stereoselective β -glycosylation of solasodine.

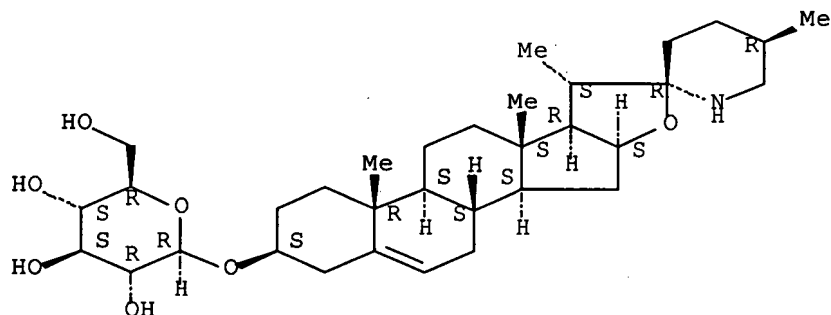
IT 14197-65-0P 500551-43-9P 500551-45-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of solanum glycosides via stereoselective glycosylation of solasodine)

RN 14197-65-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
(9CI) (CA INDEX NAME)

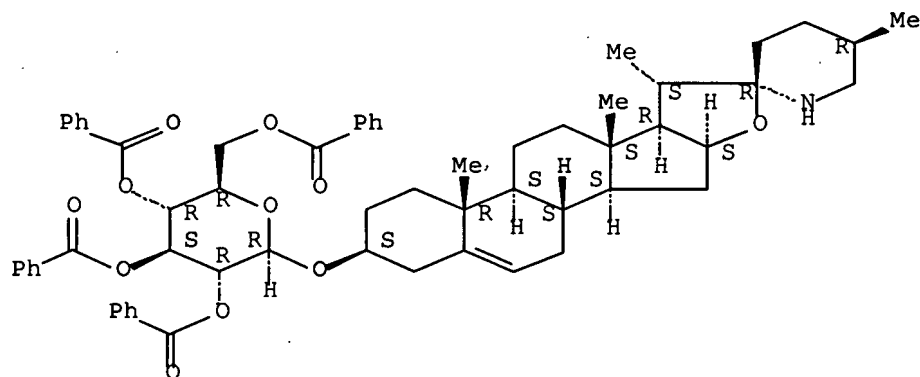
Absolute stereochemistry. Rotation (-).



RN 500551-43-9 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl, 2,3,4,6-tetrabenzoate (9CI) (CA INDEX NAME)

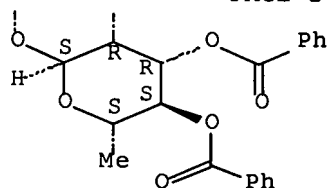
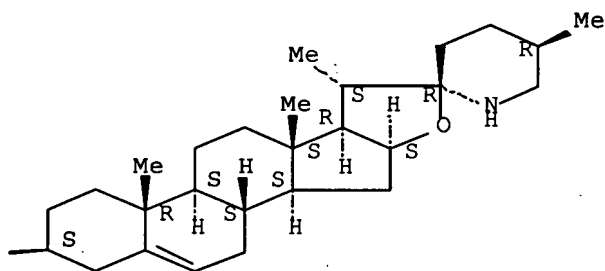
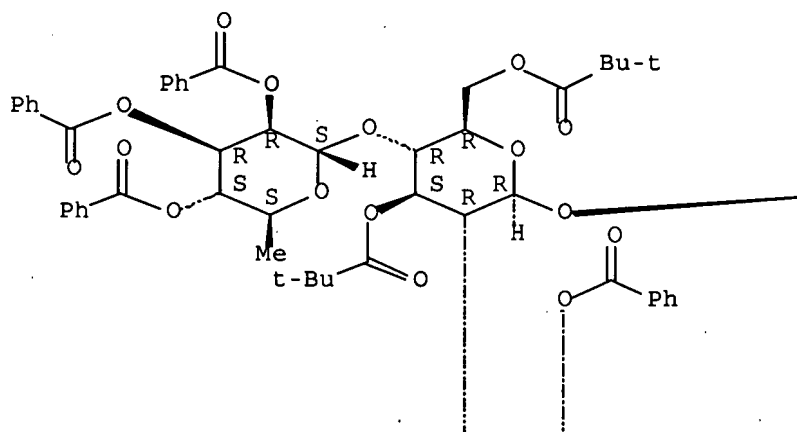
Absolute stereochemistry.



RN 500551-45-1 HCAPLUS

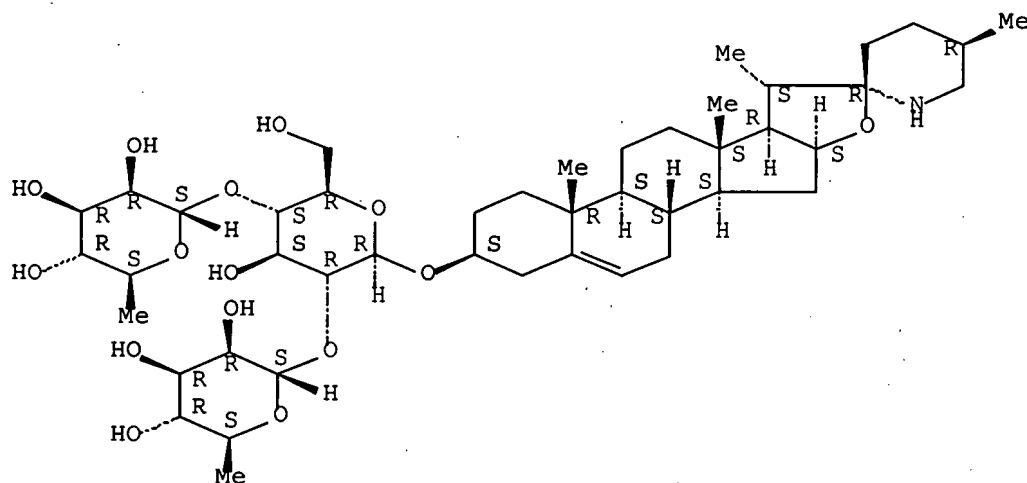
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-2,3,4-tri-O-benzoyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[2,3,4-tri-O-benzoyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]-, 3,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 20311-51-7P 500551-44-0P 500551-46-2P
 500551-47-3P
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
 PREP (Preparation)
 (synthesis of solanum glycosides via stereoselective
 glycosylation of solasodine)
 RN 20311-51-7 HCAPLUS
 CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

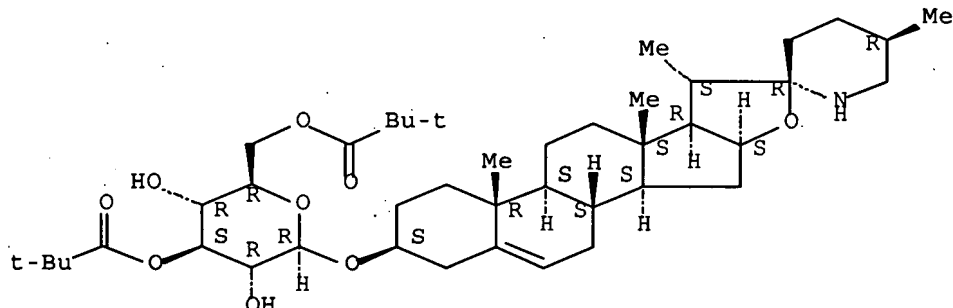
Absolute stereochemistry.



RN 500551-44-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl, 3,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

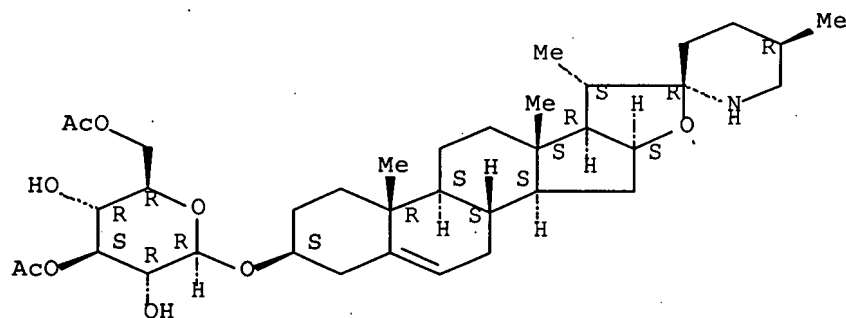


RN 500551-46-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl, 3,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

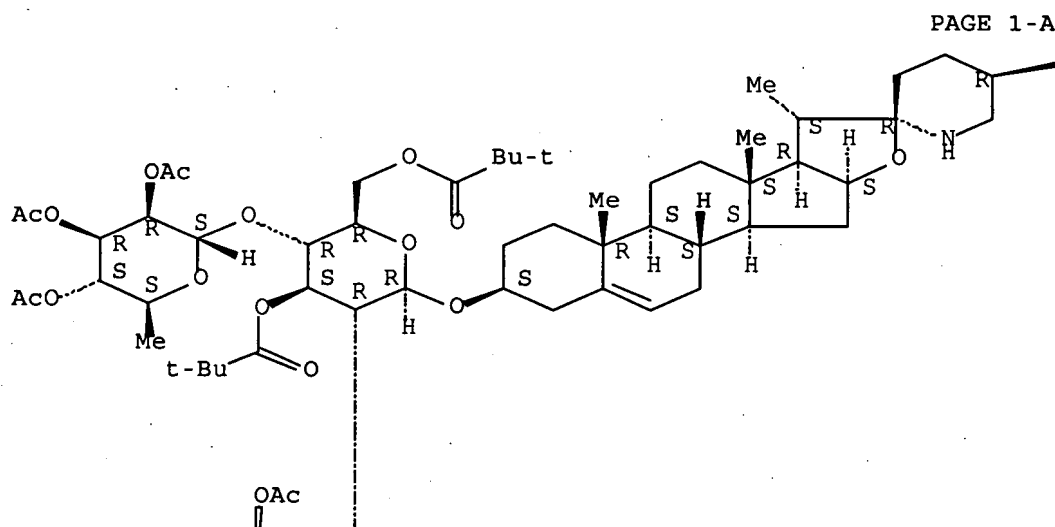
10/563,743



RN 500551-47-3 HCAPLUS

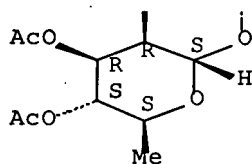
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-
[2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]-,
3,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



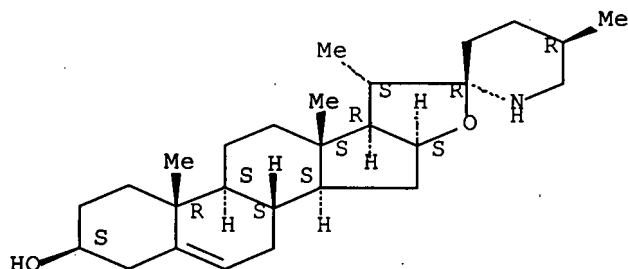
Me

PAGE 1-B



IT 126-17-0, Solasodine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of solanum glycosides via stereoselective
 glycosylation of solasodine)
 RN 126-17-0 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R) - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L124 ANSWER 9 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:779450 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:26417
 TITLE: Immunoaffinity column for isolation of bioactive
 compounds using monoclonal antibodies
 AUTHOR(S): Putalun, Waraporn; Fukuda, Noriko; Tanaka,
 Hiroyuki; Shoyama, Yukihiro
 CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Khon Kaen
 University, Khon Kaen, 40002, Thailand
 SOURCE: Journal of Liquid Chromatography & Related
 Technologies (2002), 25(13 - 15),
 2387-2398
 CODEN: JLCTFC; ISSN: 1082-6076
 PUBLISHER: Marcel Dekker, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

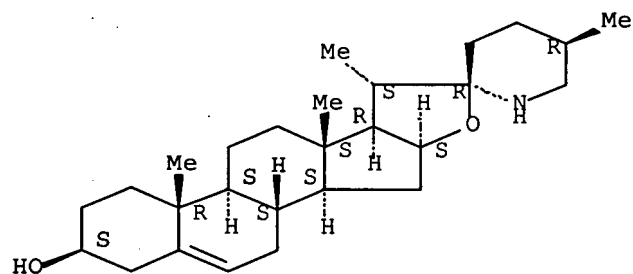
ED Entered STN: 13 Oct 2002

AB Anti-solamargine and anti-ginsenoside Rb1 monoclonal antibodies were used for
 preparation of an immunoaffinity column. Total solasodine glycosides were
 separated directly from the crude extract of Solanum khasianum fruit, by the
 established immunoaffinity column. This method was specific for solasodine
 glycosides, which was detected by thin layer chromatog. and eastern blotting.
 An immunoaffinity column, using anti-ginsenoside Rb1 monoclonal antibody, has
 made possible a single-step separation of ginsenoside Rb1 from a crude extract
 of ginseng roots (Panax ginseng).

IT 126-17-0DP, Solasodine, glycosides 126-17-0P,
 Solasodine 19121-58-5P, Solasonine 20311-51-7P,
 Solamargine 32449-98-2P
 RL: PUR (Purification or recovery); PREP (Preparation)
 (immunoaffinity column for isolation of bioactive compds.)
 RN 126-17-0 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R) - (CA INDEX NAME)

10/563,743

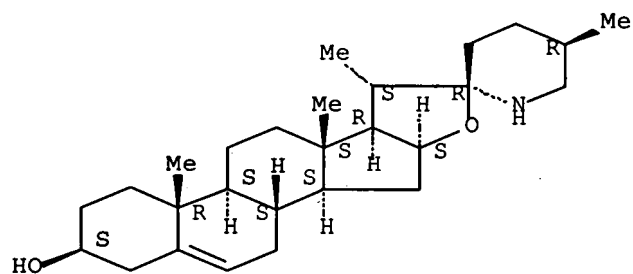
Absolute stereochemistry. Rotation (-).



RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

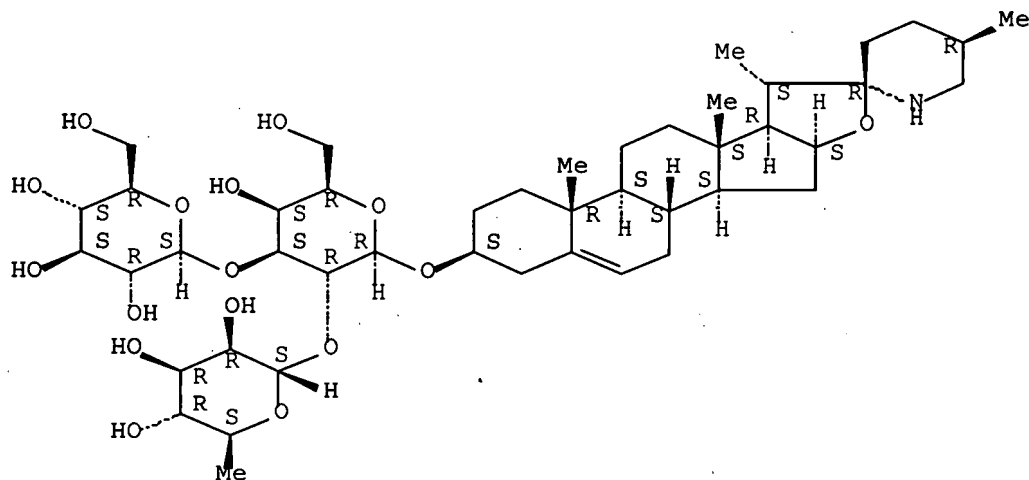
Absolute stereochemistry. Rotation (-).



RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

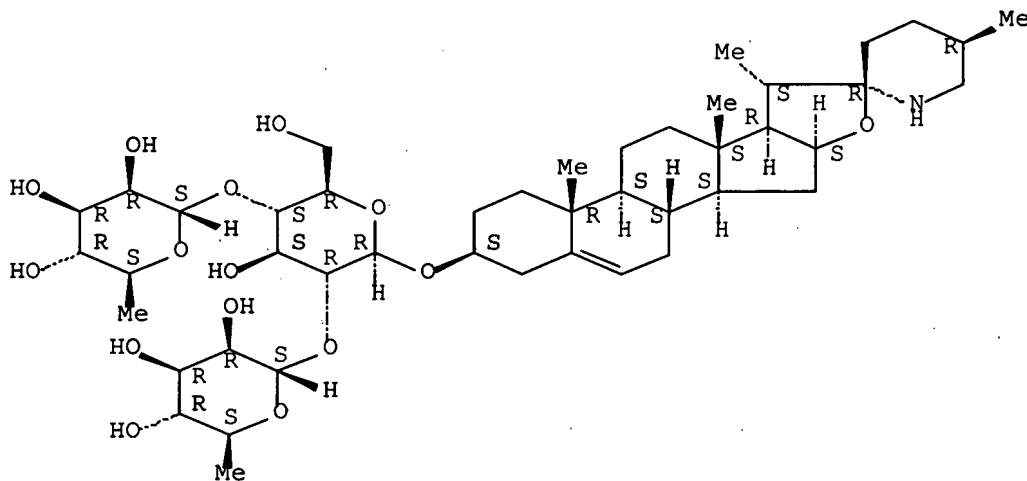
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

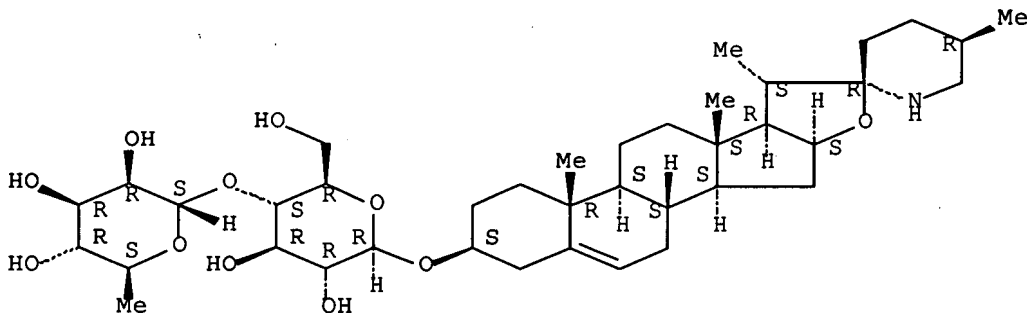
Absolute stereochemistry.



RN 32449-98-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 4-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

12

THERE ARE 12 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L124 ANSWER 10 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:922173 HCAPLUS Full-text

DOCUMENT NUMBER: 136:291700

TITLE: Bioactive steroidal alkaloid glycosides from
 Solanum aculeastrum

AUTHOR(S): Wanyonyi, Alphonse W.; Chhabra, Sumesh C.;
 Mkoji, Gerald; Eilert, Udo; Njue, Wilson M.

CORPORATE SOURCE: Chemistry Department, Kenyatta University,
Nairobi, Kenya

SOURCE: Phytochemistry (2002), 59(1), 79-84
CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Dec 2001

AB *Solanum aculeastrum* Dunal was investigated for the presence of molluscicidal compds. This led to the isolation of solaculine A, from the root bark in addition to known steroidal alkaloids; solamargine and β -solamarine from the berries. The structures were elucidated by spectroscopic techniques. Molluscicidal activity of the aqueous exts. of the berries and root bark, and the isolated compds. were investigated.

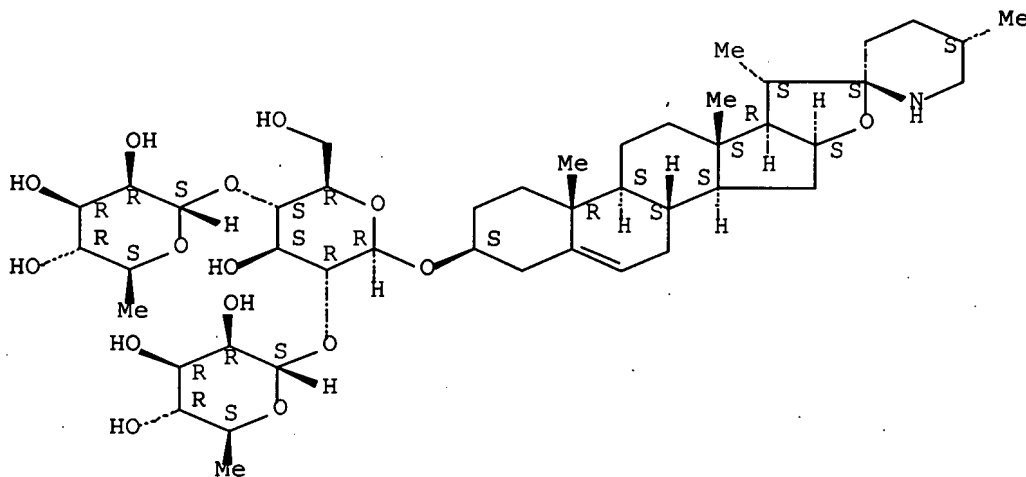
IT 3671-38-3P, β -Solamarine 20311-51-7P,
Solamargine

RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(bioactive steroidal alkaloid glycosides from *Solanum aculeastrum*)

RN 3671-38-3 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

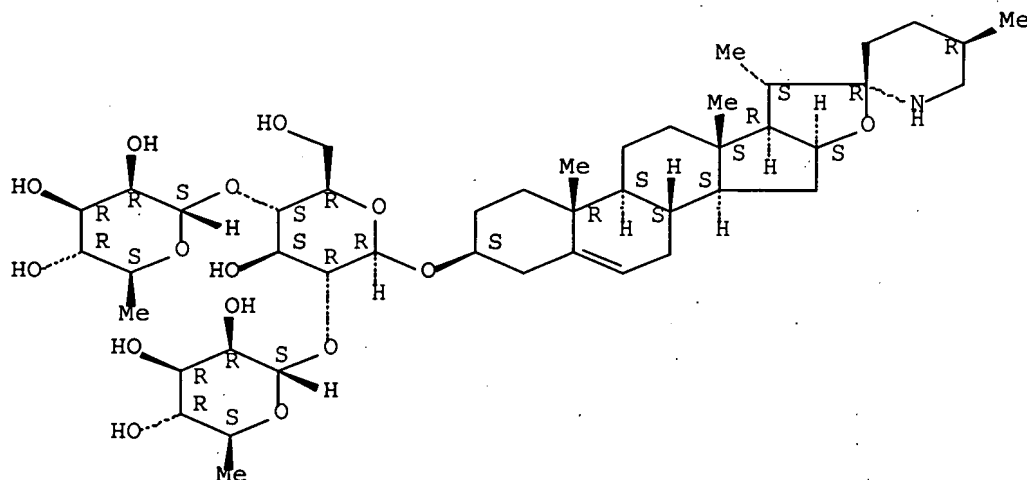
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 408345-39-1P, Solaculine A

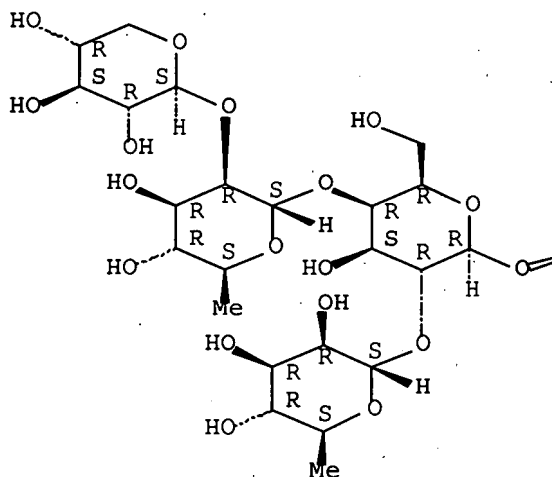
RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent) (bioactive steroidal alkaloid glycosides from *Solanum aculeastrum*)

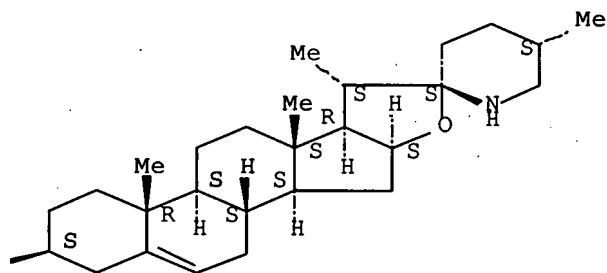
RN 408345-39-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl O- β -D-xylopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

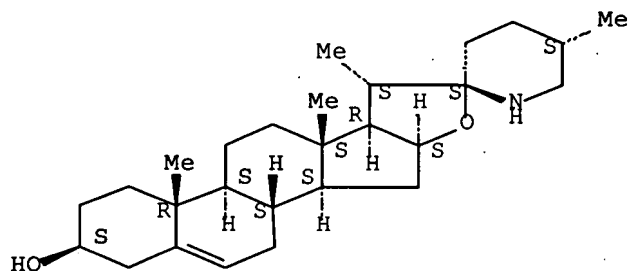
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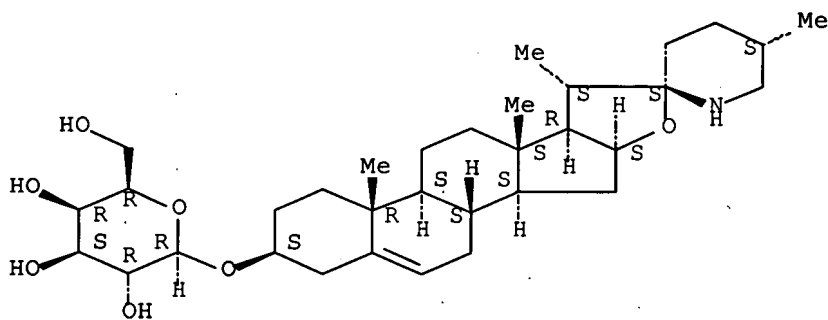
IT 546-40-7P, Tomatidenol 408324-99-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (bioactive steroidal alkaloid glycosides from *Solanum
 aculeastrum*)
 RN 546-40-7 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 β ,25S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 408324-99-2 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT:

23

THERE ARE 23 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L124 ANSWER 11 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:520796 HCAPLUS Full-text

DOCUMENT NUMBER: 136:194997

TITLE: Molecular markers associated with leptinine production are located on chromosome 1 in *Solanum chacoense*

AUTHOR(S): Hutvagner, G.; Banfalvi, Z.; Milankovics, I.; Silhavy, D.; Polgar, Z.; Horvath, S.; Wolters, P.; Nap, J.-P.

CORPORATE SOURCE: Agricultural Biotechnology Center, Godollo, H-2101, Hung.

SOURCE: Theoretical and Applied Genetics (2001), 102(6-7), 1065-1071

CODEN: THAGA6; ISSN: 0040-5752

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Jul 2001

AB Leptines of *Solanum chacoense* are effective natural deterrents against the Colorado potato beetle. Leptines are the acetylated forms of the glycoalkaloids solanine and chaconine and are supposed to be synthesized via hydroxylated derivs., called leptinines. Inheritance of leptinine production was studied in crosses of closely related *S. chacoense* genotypes. The segregation data supported a single-gene model for the inheritance of leptinine production. In the segregating F1 population of a *S. chacoense* cross, AFLP, RFLP and RAPD markers segregating with the leptinine production have been identified. The locus involved in leptinine synthesis was localized to the short arm of chromosome 1 of the potato where a major QTL for solanidine production, and markers with tight linkage to leptine production, have been mapped before. Our data further support the previous finding that the short arm of chromosome 1 is involved in steroid alkaloid synthesis in potato, and suggest that the genes involved in leptinine and leptine production are tightly linked in *S. chacoense*.

IT 100994-57-8P, Leptinine II 101009-59-0P, Leptinine I

RL: BPN (Biosynthetic preparation); BIOL (Biological study);

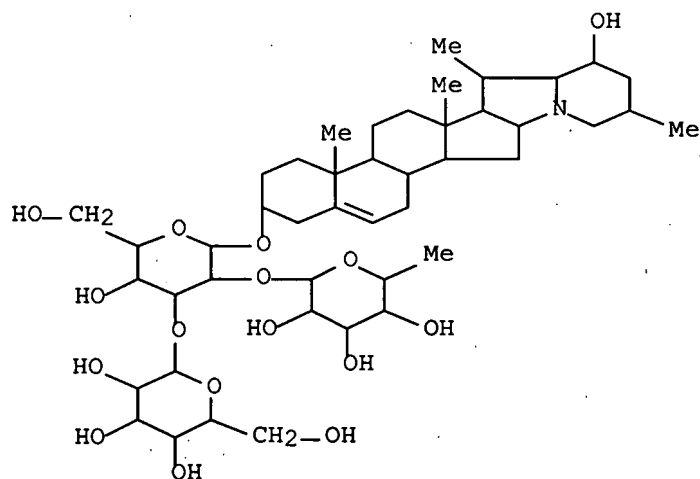
PREP (Preparation)

(mol. markers associated with leptinine production are located on chromosome 1 in *Solanum chacoense*)

RN 100994-57-8 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI). (CA INDEX NAME)

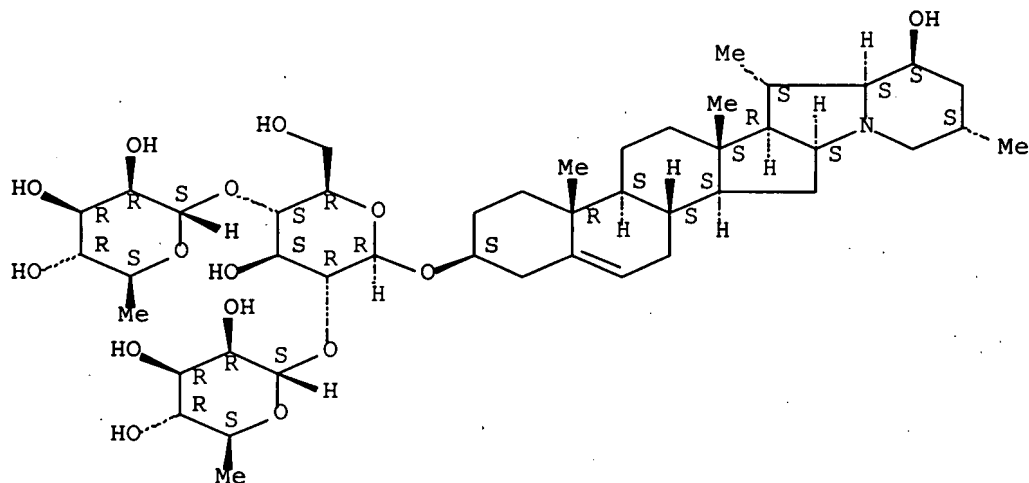
10/563,743



RN 101009-59-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

29

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 12 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:444881 HCAPLUS Full-text

DOCUMENT NUMBER: 136:196481

TITLE: Effect of temperature of hydrolytic extraction of solanidine from tuber sprouts of potato (*Solanum tuberosum* L.)

AUTHOR(S): Nikolic, Nada C.; Stankovic, Mihajlo Z.

CORPORATE SOURCE: Tehnoloski fak., Univerzitet u Nisu, Leskovac, 16000, Yugoslavia

SOURCE: Acta Periodica Technologica (2000),
31(Pt. B), 645-653
CODEN: APTEFF; ISSN: 1450-7188
PUBLISHER: University of Novi Sad, Faculty of Technology
DOCUMENT TYPE: Journal
LANGUAGE: Serbian

ED Entered STN: 20 Jun 2001

AB The effect of temperature on the kinetics of solanidine hydrolytic extraction and yield of total extractive materials from tuber sprouts was studied. The main goal is to select the optimal temperature for solanidine hydrolytic extraction, which is the first important phase during its isolation. Dry and milled tuber sprouts of potato, cv Desiree was used. Hydrolytic extraction was carried out under the optimal conditions (solns. A: 5% (weight/volume) HCl in 2% (weight/volume) CH₃COOH and B: 5% HCl (weight/volume) in 96% volume ethanol; the ratio of plant material: solvent: 1:20 (weight/volume)). The content of solanidine in exts. was determined spectrophotometrically using methyl-orange as color reagent. The yield of total extractive materials was also determined. Results showed that the highest degree of solanidine hydrolytic extraction and the maximal yield of total extractive materials increased by increasing temperature. The highest degree of solanidine hydrolytic extraction at 74°C (about 75%), was obtained by solution A after 30 min and by solution B after 45 min (about 98%). The highest yield of total extractive materials at 74°C was obtained by solution A after 30 min (8%), and by solution B ethanol after 20 min (about 6%). In investigated hydrolyzates, solanidine, α -, β 1- and β 2-chaconine, γ -solanine and γ -chaconine were detected by thin layer chromatog.

IT 469-14-7P, β 2-Chaconine 472-51-5P

511-36-4P, γ -Chaconine 511-37-5P,

γ -Solanine 20562-03-2P, α -Chaconine

RL: PUR (Purification or recovery); PREP (Preparation)

(hydrolytic extraction of solanidine from tuber sprouts of potato

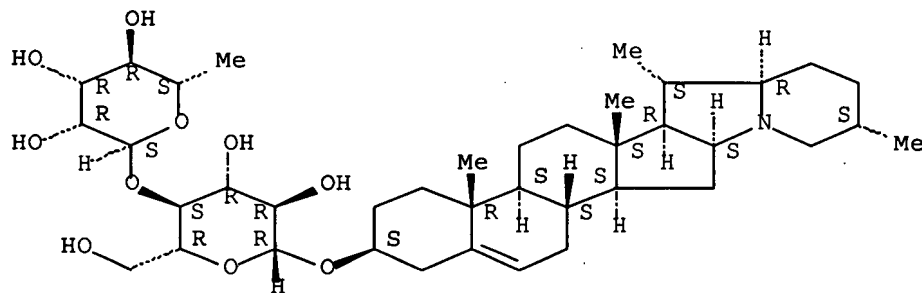
(*Solanum tuberosum*) response to temperature)

RN 469-14-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl

4-O-(6-deoxy- α -L-mannopyranosyl) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



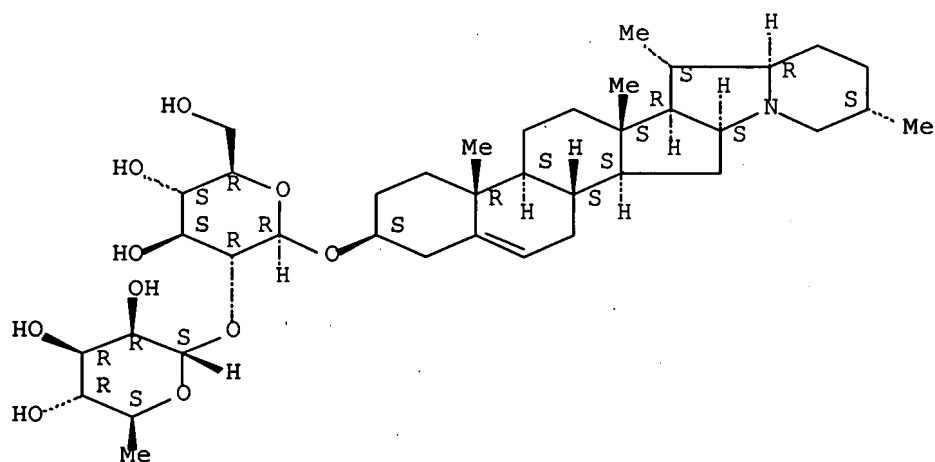
RN 472-51-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl

2-O-(6-deoxy- α -L-mannopyranosyl) - (CA INDEX NAME)

Absolute stereochemistry.

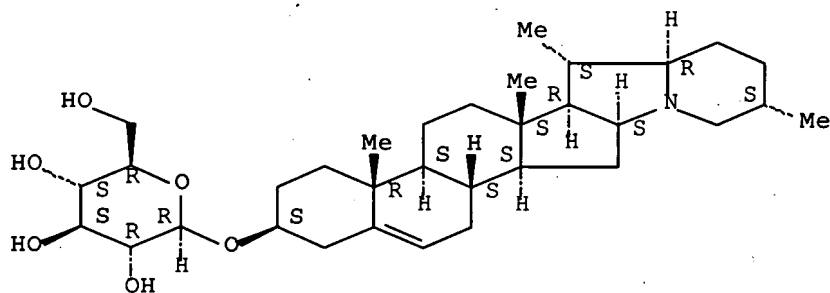
10/563,743



RN 511-36-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl (CA INDEX NAME)

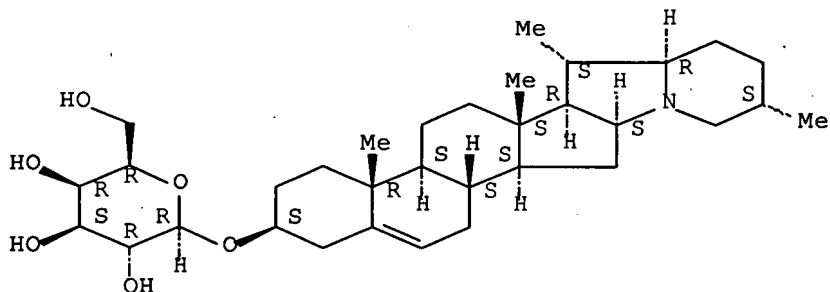
Absolute stereochemistry.



RN 511-37-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl (CA INDEX NAME)

Absolute stereochemistry.

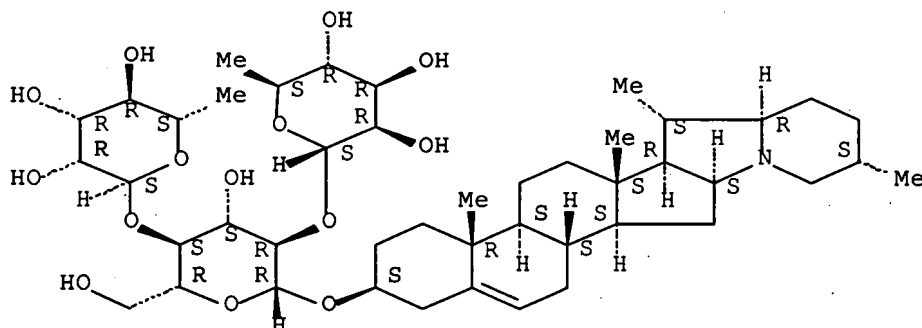


RN 20562-03-2 HCAPLUS

10/563,743

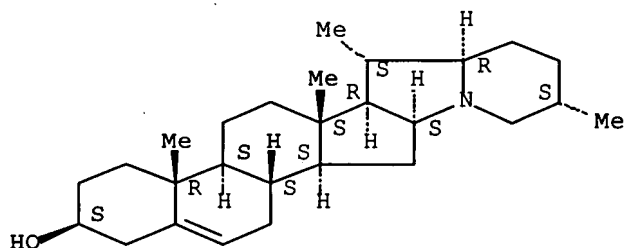
CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 80-78-4P, Solanidine
RL: PUR (Purification or recovery); PREP (Preparation)
(temperature effect on hydrolytic extraction of solanidine from tuber
sprouts of potato (Solanum tuberosum))
RN 80-78-4 HCAPLUS
CN Solanid-5-en-3-ol, (3 β)- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:699254 HCAPLUS Full-text
DOCUMENT NUMBER: 133:232810
TITLE: Steroid glycoside compounds for treating cancer
and preparation method thereof
INVENTOR(S): Yao, Xincheng; Hu, Ke; Dong, Aijun
PATENT ASSIGNEE(S): Shenyang Medicine Univ., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24
pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1243129

A

20000202

CN 1999-113116

199907

20

PRIORITY APPLN. INFO.:

CN 1999-113116

199907

20

OTHER SOURCE(S): MARPAT 133:232810

ED Entered STN: 05 Oct 2000

AB One medicinal preparation used for treatment of tumor contains steroid saponin compds. (Markush's structures given). Solamargine is isolated from Solanum lyratum by extracting with 60% ethanol, concentrating, suspending in water, extracting with butanol, and separating by silica gel column chromatog. Prosapogenin A of dioscin, dioscin, gracillin, and protogracillin are isolated from root and stem of Costus speciosus. The structures are identified by UV, IR, MS, 1D-NMR, and 2D- NMR analyses. The inhibitory effects of the extracted steroid saponin compds. on tumors are studied.

IT 19057-60-4P, Dioscin 19083-00-2P, Gracillin

20311-51-7P, Solamargine 54522-52-0P,

Methylprotodioscin 54848-30-5P, Protogracillin

60478-69-5P, Protoneodioscin 189100-83-2P,

Hypoglaucin F 191283-75-7P 191334-50-6P,

Protoneogracillin

RL: PRP (Properties); PUR (Purification or recovery); THU

(Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

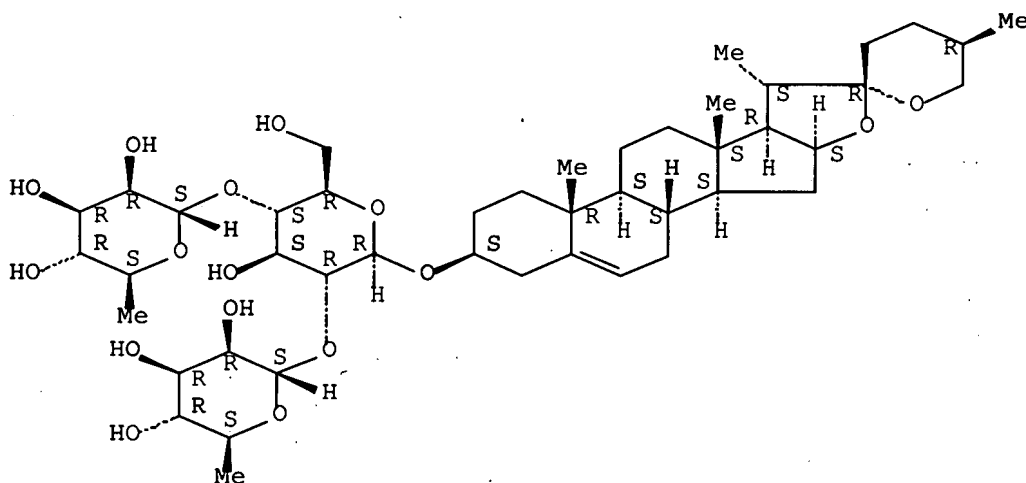
(steroid glycoside compds. for treating cancer and preparation method thereof)

RN 19057-60-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl

O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



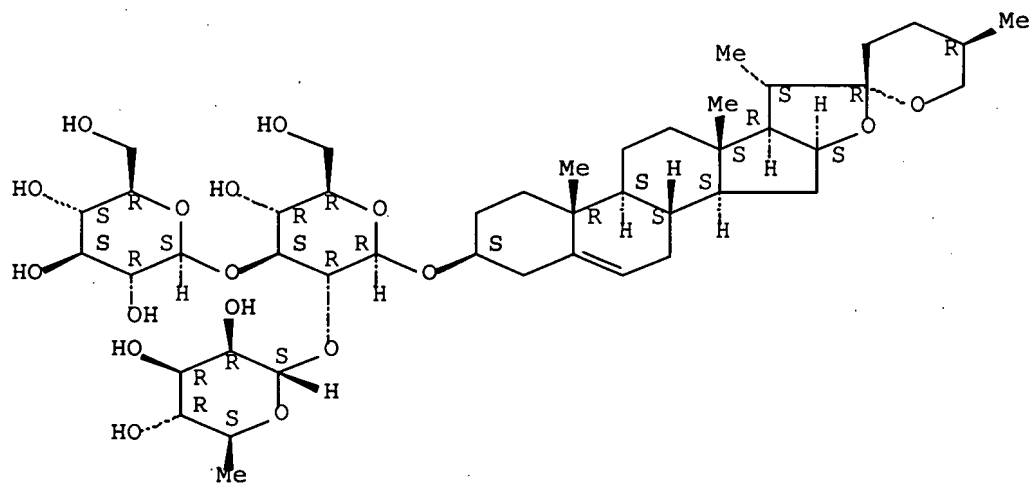
RN 19083-00-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl

10/563,743

O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

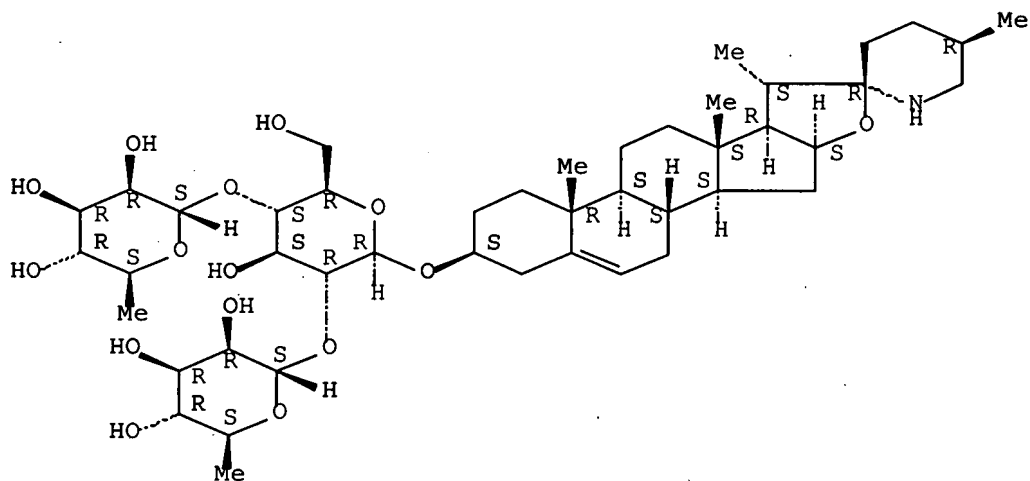
Absolute stereochemistry. Rotation (-).



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



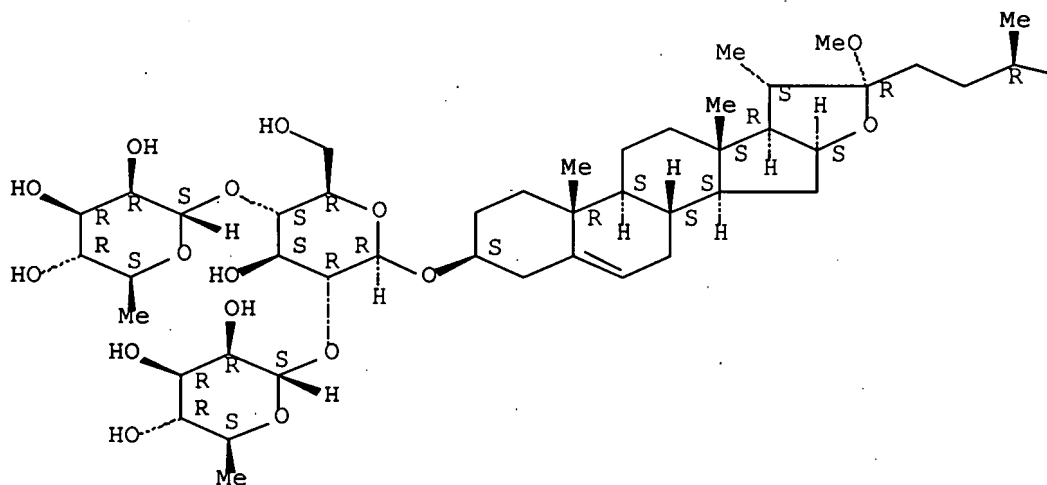
RN 54522-52-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-26-(β -D-glucopyranosyloxy)-22-methoxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

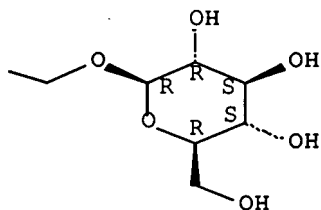
10/563,743

Absolute stereochemistry. Rotation (-).

PAGE 1-A



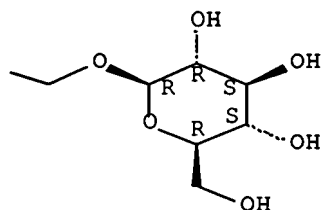
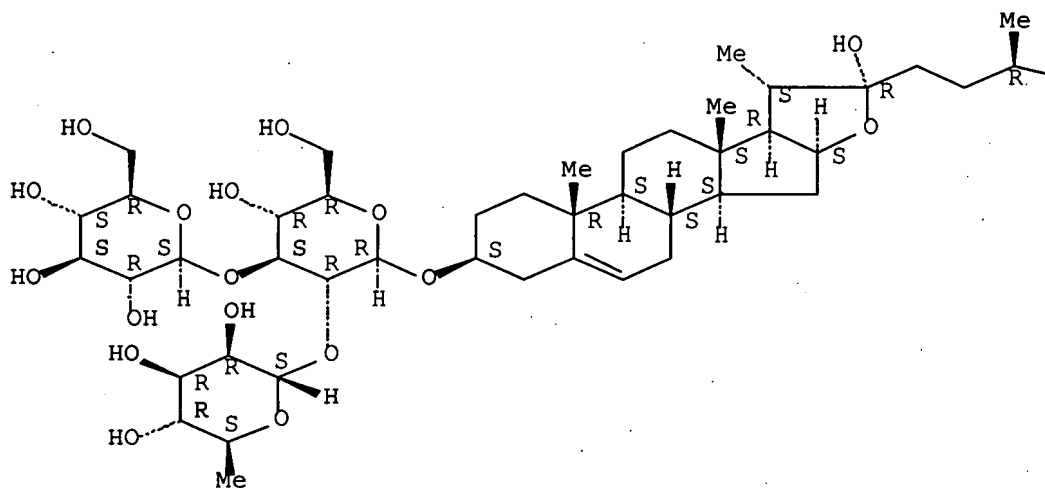
PAGE 1-B



RN 54848-30-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

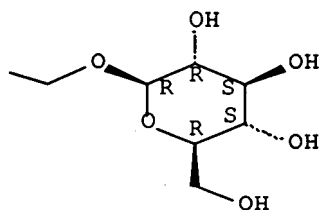
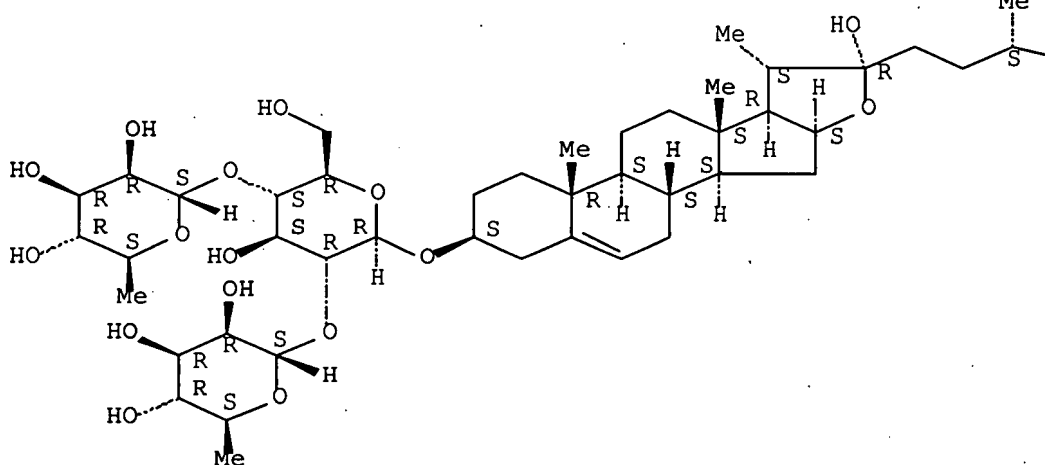
Absolute stereochemistry.



RN 60478-69-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

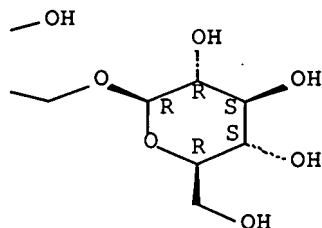
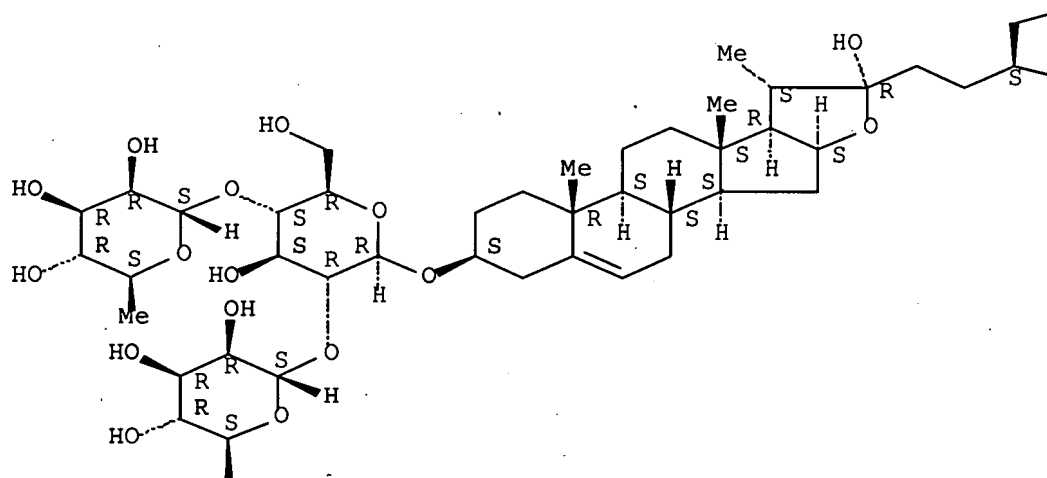
Absolute stereochemistry.



RN 189100-83-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22,27-dihydroxyfurost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

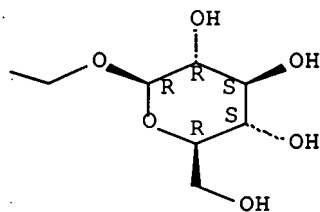
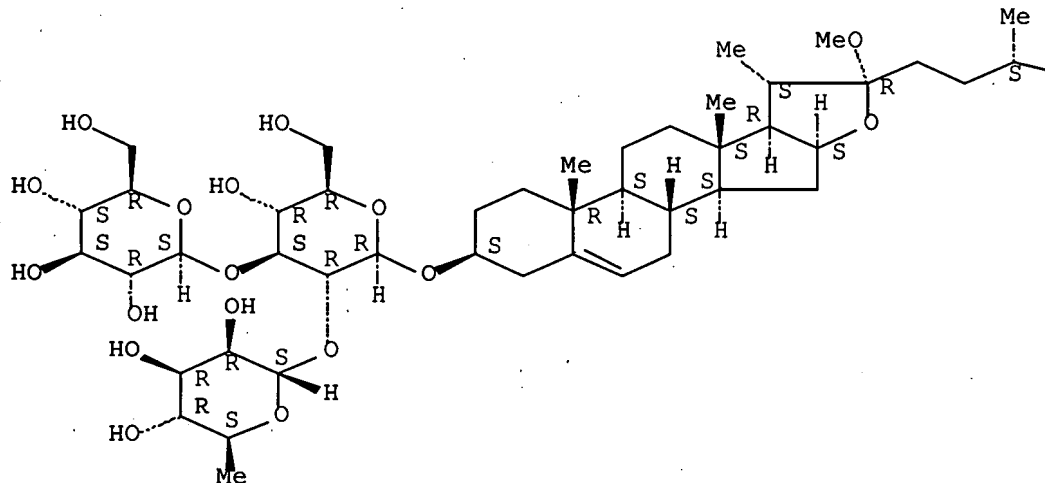
Absolute stereochemistry. Rotation (-).



RN 191283-75-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-methoxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

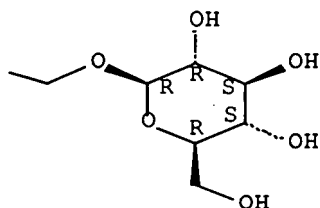
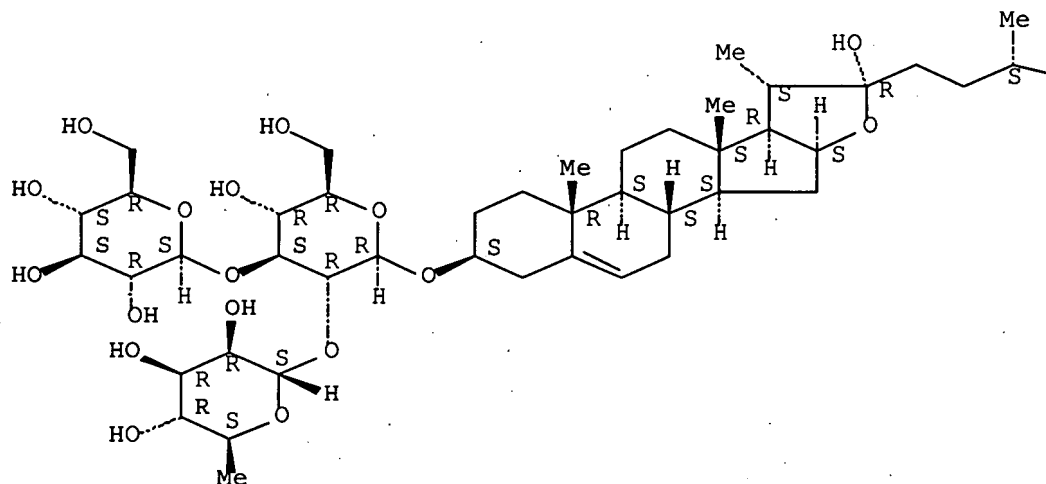
Absolute stereochemistry.



RN 191334-50-6 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 14 OF 50 HCAPLUS. COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:694980 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:232809
 TITLE: Steroid saponin compounds for curing cancer and
 their preparation method
 INVENTOR(S): Yao, Xinsheng; Hu, Ke; Dong, Aijun
 PATENT ASSIGNEE(S): Shengyang Univ. of Pharmaceutical Sciences,
 Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 28
 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1237583	A	19991208	CN 1998-114030	199806 01

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OTHER SOURCE(S): MARPAT 133:232809

ED Entered STN: 04 Oct 2000

AB One medicinal preparation used for treatment of tumor contains steroid saponin compds. (Markush's structures given). Solamargine is isolated from Solanum lyratum by extracting with 60% ethanol, concentrating, suspending in water, extracting with butanol, and separating by silica gel column chromatog. Prosapogenin A of dioscin, dioscin, gracillin, and protogracillin are isolated from root and stem of Costus speciosus. The structures are identified by UV, IR, MS, 1D-NMR, and 2D-NMR analyses. The inhibitory effects of the extracted steroid saponin compds. on tumors are studied. Formulation examples of tablets, capsules, syrups, and injections were given.

IT 19057-60-4P, Dioscin 19083-00-2P, Gracillin
20311-51-7P, Solamargine 54522-52-0P,
Methylprotodioscin 54848-30-5P, Protogracillin
60478-69-5P, Protoneodioscin 189100-83-2P,
Hypoglaurin F 191283-75-7P 191334-50-6P,
Protoneogracillin

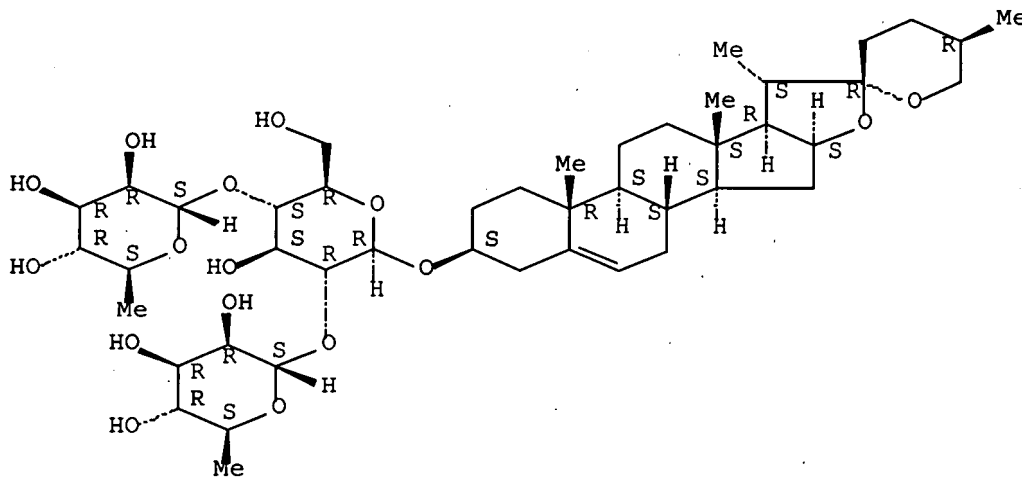
RL: PRP (Properties); PUR (Purification or recovery); THU
(Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)

(steroid saponin compound for curing cancer and its preparation method)

RN 19057-60-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

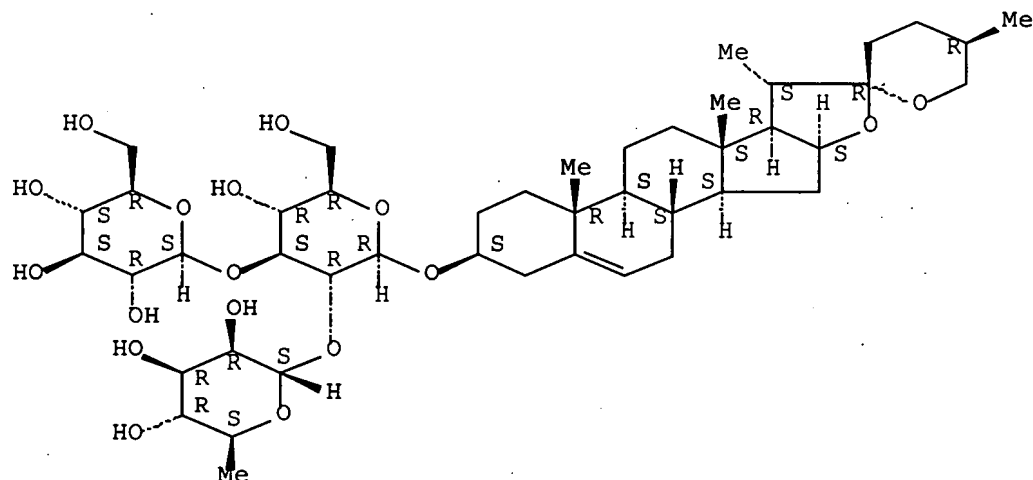
Absolute stereochemistry.



RN 19083-00-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

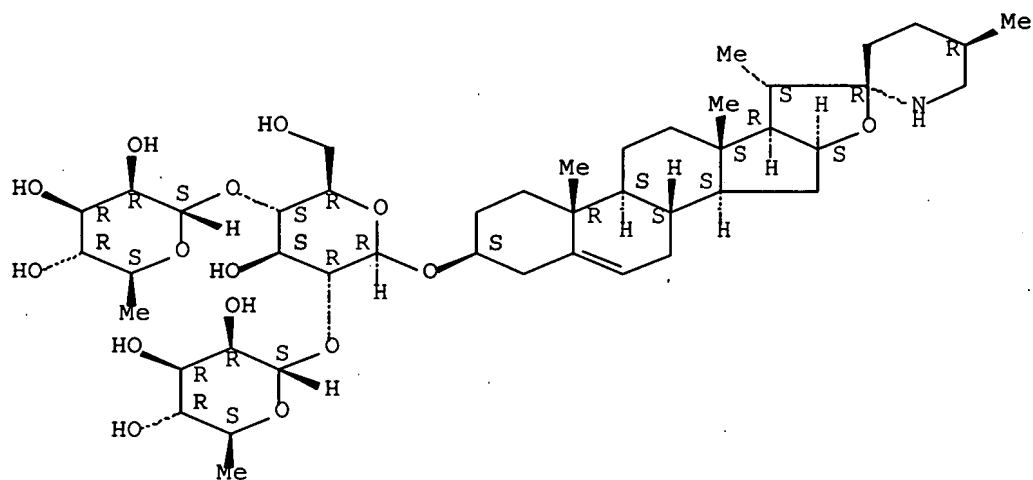
Absolute stereochemistry. Rotation (-).



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

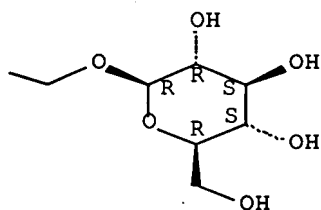
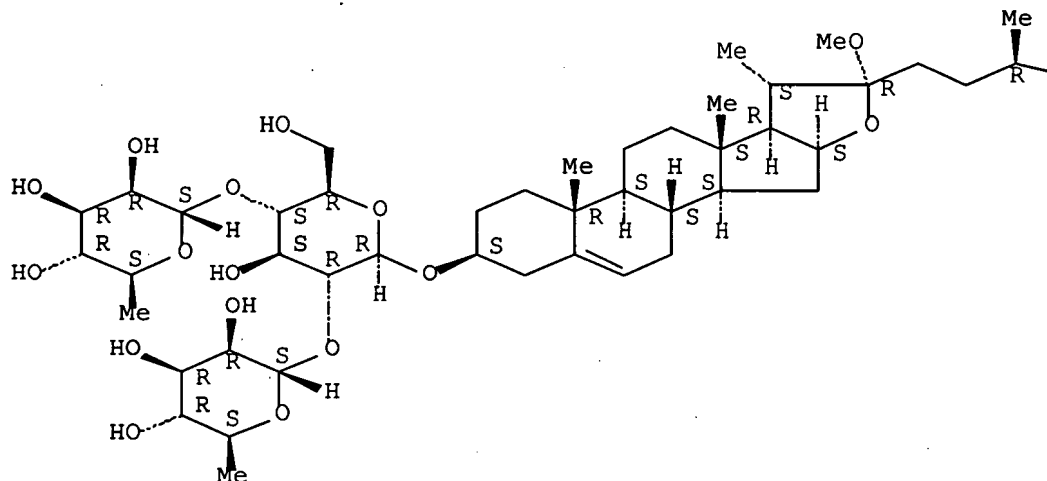
Absolute stereochemistry.



RN 54522-52-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-26-(β -D-
glucopyranosyloxy)-22-methoxyfurost-5-en-3-yl O-6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-
(1 \rightarrow 4)]- (CA INDEX NAME)

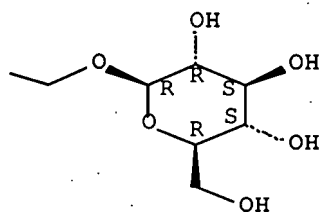
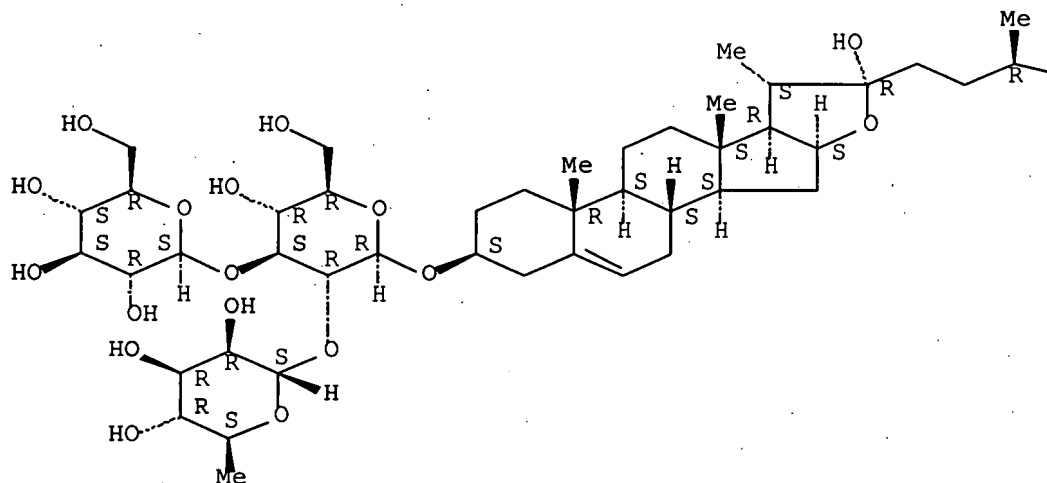
Absolute stereochemistry. Rotation (-).



RN 54848-30-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

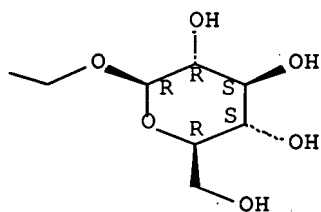
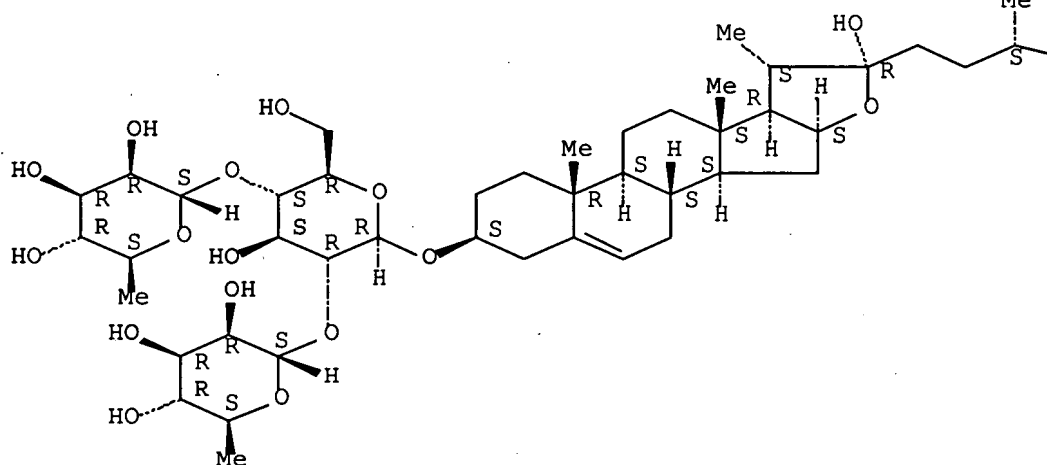
Absolute stereochemistry.



RN 60478-69-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

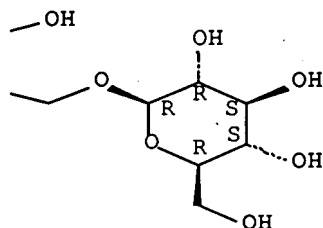
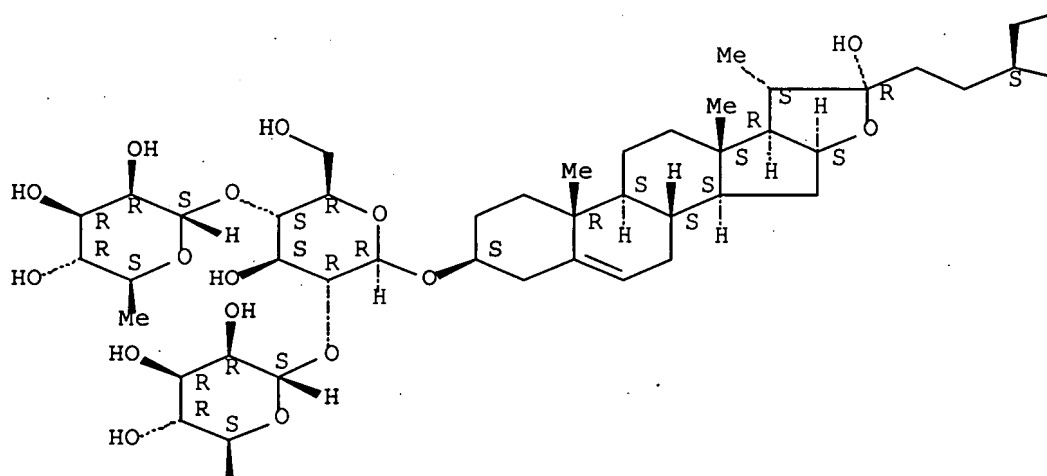
Absolute stereochemistry.



RN 189100-83-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22,27-dihydroxyfurost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

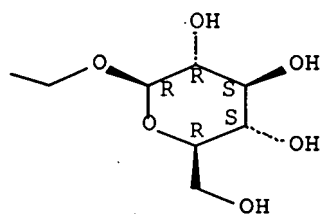
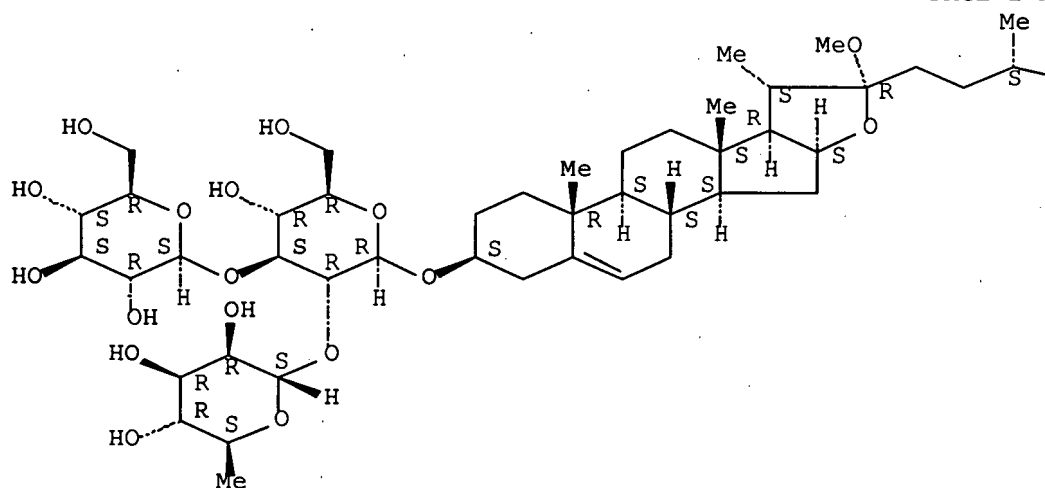
Absolute stereochemistry. Rotation (-).



RN 191283-75-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-methoxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

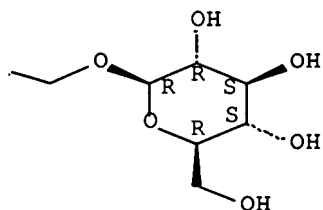
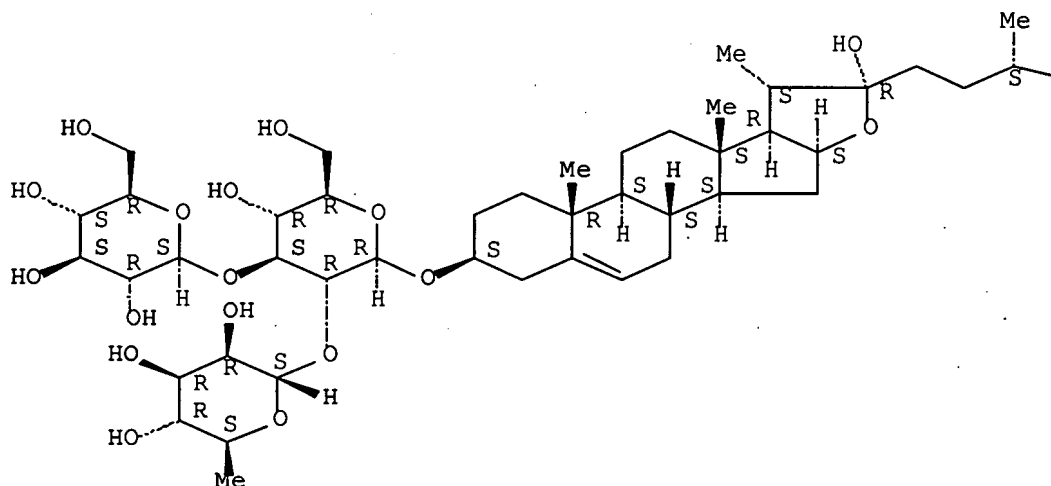
Absolute stereochemistry.



RN 191334-50-6 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-22-hydroxyfurost-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]-(CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 15 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:348476 HCAPLUS Full-text

DOCUMENT NUMBER: 133:147062

TITLE: Partial preparative purification of leptine I from foliage of the wild potato, *Solanum chacoense* (Bitt)

AUTHOR(S): Kowalski, Stanley P.; Perez, Frances G.; Sanford, Lind L.; Deahl, Kenneth L.

CORPORATE SOURCE: A. R. S. Plant Sciences Institute Vegetable Laboratory, U. S. D. A., Beltsville, MD, 20705-2350, USA

SOURCE: Preparative Biochemistry & Biotechnology (2000), 30(2), 133-144

CODEN: PBBIF4; ISSN: 1082-6068

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 25 May 2000

AB Leptine I, a glycoalkaloid only known to occur in the foliage of the wild potato species *Solanum chacoense* (Bitt.), is a potent feeding deterrent to the economically serious insect pest, the Colorado potato beetle (*Leptinotarsa decemlineata* Say). In order to demonstrate, systematically, the effectiveness of leptine I, incorporation into synthetic beetle diet trials is necessary.

We describe a preparative procedure for the partial purification of leptine I by a series of steps, starting with a solid-phase C18 extraction, followed by sequential silica gel chromatog., and finally reversed-phase preparative HPLC. This preparation yields a white powder, containing leptine I as the sole glycoalkaloid, with an overall purity of greater than 65%, and is entirely suitable for incorporation into synthetic diets.

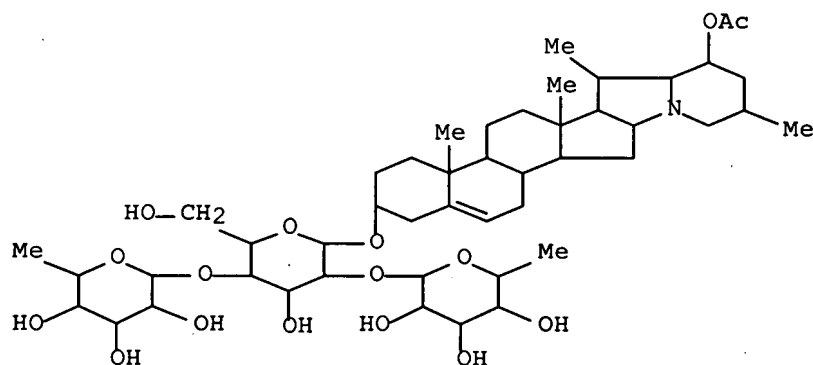
IT 101030-83-5P, Leptine I

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(partial preparative purification of leptine I from foliage of wild potato, *Solanum chacoense* (Bitt))

RN 101030-83-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-(acetyloxy)solanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 16 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:29018 HCAPLUS Full-text

DOCUMENT NUMBER: 132:134842

TITLE: Isolation and characterization of a glycoside from fluid extracts of *Solanum americanum* mill

AUTHOR(S): Vidal Aldana, Maritza; Noguiera Lima, Clara

CORPORATE SOURCE: ISP Jose de la Luz y Caballero-Holguin, Havana, Cuba

SOURCE: Afinidad (1999), 56(484), 393-396

CODEN: AFINAE; ISSN: 0001-9704

PUBLISHER: Asociacion de Quimicos del Instituto Quimico de Sarria

DOCUMENT TYPE: Journal

LANGUAGE: Spanish

ED Entered STN: 13 Jan 2000

AB The method of extraction, purification and spectroscopic characterization is described for one of the glycosides present in the leaves of the *Solanum americanum* Mill; resulting its structure the solasonine. Furthermore were isolated and characterized the sapogenin tigogenin and the steroidal alkaloid solasodine.

IT 126-17-0P, Solasodine 19121-58-5P, Solasonine

RL: PUR (Purification or recovery); PREP (Preparation)

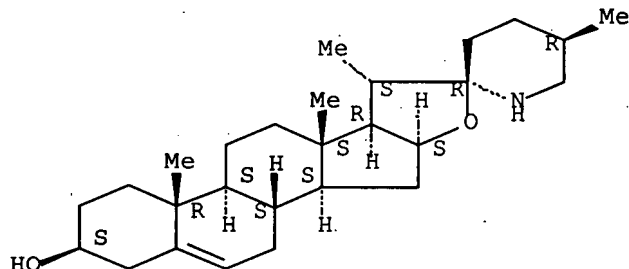
10/563,743

(isolation and characterization of a glycoside from fluid exts.
of solanum americanum mill)

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

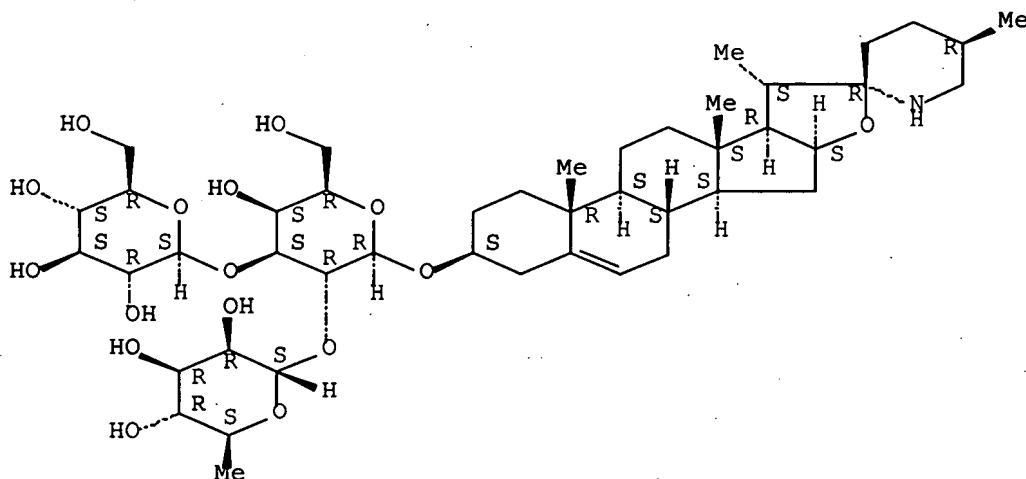
Absolute stereochemistry. Rotation (-).



RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

12

THERE ARE 12 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L124 ANSWER 17 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:793014 HCAPLUS Full-text

DOCUMENT NUMBER: 132:180778

TITLE: Separation of potato glycoalkaloids

AUTHOR(S): Stankovic, Mihailo Z.; Nikolic, Nada C.

CORPORATE SOURCE: Fac. of Technology, Leskovac, Yugoslavia

SOURCE: Hemijska Industrija (1999), 53(9-10),
278-283

CODEN: HMIDA8; ISSN: 0367-598X

PUBLISHER: Savez Hemicara i Tehnologa Jugoslavije
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 16 Dec 1999

AB For the preparative separation of α -solanine and α -chaconine from potato total glycoalkaloids (TGA), methods of thin layer chromatog. (TLC) on silica gel G, column chromatog. (CC) on aluminum oxide (Al₂O₃) and fractional dissoln. (FD) with mono, 'two and three component mixts. of solvents were developed. The isolated glycoalkaloids were identified by comparing their phys.-chemical data, Rf-values (TLC), colorimetric reactions and visible spectrophotometric (VIS), IR spectrophotometric (IR) and combination gas chromatog.-mass spectrophotometric (GC-MS) spectra with standard of α -solanine and α -chaconine data and spectra.

IT 20562-02-1P, α -Solanine 20562-03-2P,
 α -Chaconine

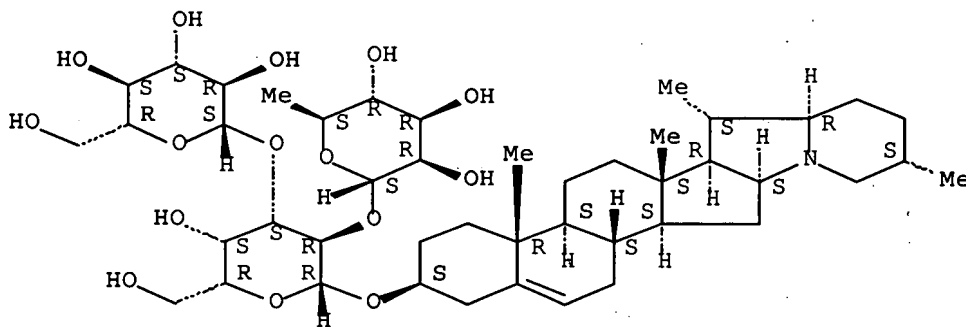
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(separation and solubility of potato glycoalkaloids)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

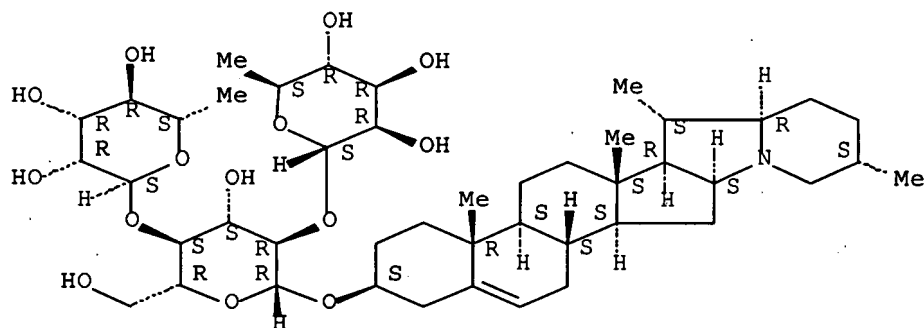
Absolute stereochemistry.



RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 18 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:456805 HCAPLUS Full-text

DOCUMENT NUMBER: 131:211569

TITLE: Structural elucidation of glycosides from *Solanum amygdalifolium*

AUTHOR(S): Vazquez, Alvaro; Ferreira, Fernando; Moyna, Patrick; Kenne, Lennart

CORPORATE SOURCE: Catedra de Farmacognosia y Productos Naturales, Facultad de Quimica, Montevideo, CC 1157, Urug.

SOURCE: Phytochemical Analysis (1999), 10(4), 194-197

CODEN: PHANEL; ISSN: 0958-0344

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Jul 1999

AB The glycoalkaloid solasonine and a new spirosten- δ -lactone saponin, foliumin A, characterized by NMR spectroscopy, MS and chemical methods as (22S,23R,25R)-3 β ,15 α ,23-trihydroxySpirost-5-en-26-one 3-O-{ α -L-rhamnopyranosyl-(1 \rightarrow 2)-[α -L-rhamnopyranosyl-(1 \rightarrow 4)]- β -D-glucopyranoside}, have been isolated from the ethanolic extract of the aerial parts of *Solanum amygdalifolium*.

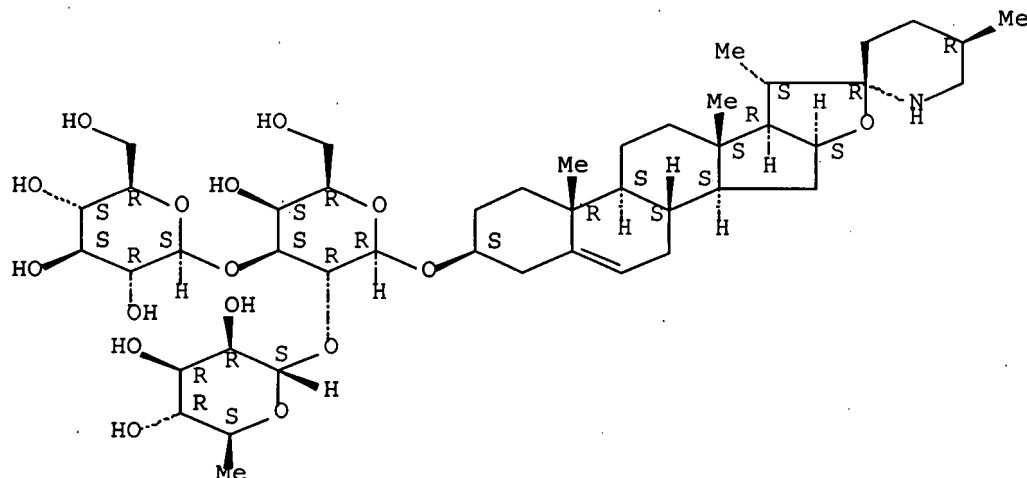
IT 19121-58-5, Solasonine

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence) (from *Solanum amygdalifolium*)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 221660-66-8P, Foliumin A

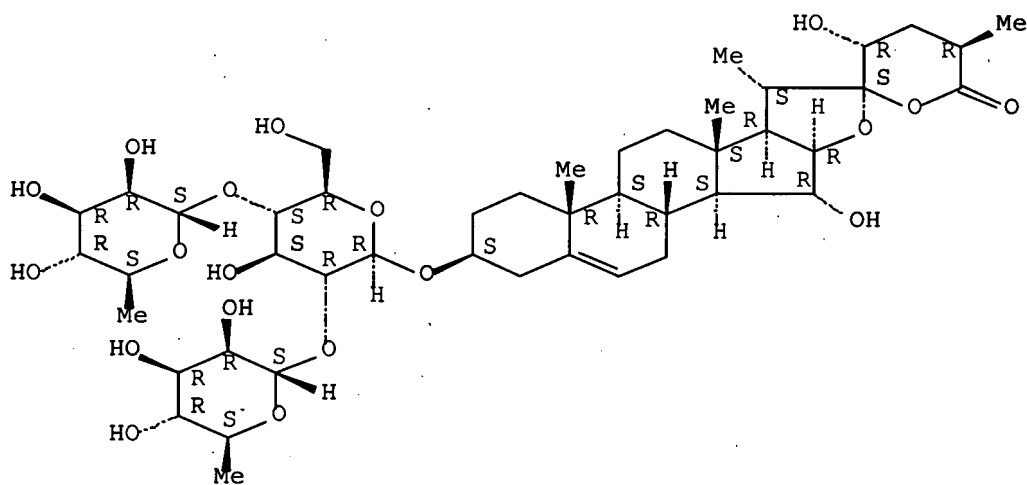
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(from *Solanum amygdalifolium*)

RN 221660-66-8 HCAPLUS

CN Spirost-5-en-26-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- β -D-glucopyranosyl)oxy]-15,23-dihydroxy-, (3 β ,15 α ,22 β ,23R,25R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

16

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 19 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:660008 HCAPLUS Full-text

DOCUMENT NUMBER: 129:330920

TITLE: Steroidal alkaloid glycosides from *Solanum orbignianum*

AUTHOR(S): Coelho, Rosemary Matias; De Souza, Maria Conceicao; Sarragiotto, Maria Helena

CORPORATE SOURCE: Centro de Ciencias Agrarias, UNIDEP, Campo Grande, 79037-280, Brazil

SOURCE: Phytochemistry (1998), 49(3), 893-897

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Oct 1998

AB Aerial parts of *Solanum orbignianum* afforded a new steroidal alkaloid glycoside, leptinidine 3-O- β -D-glucopyranoside, together with the known alkaloids leptinidine, leptinine I and leptinine II. Their structures were established by spectroscopic methods.

IT 24884-17-1P, Leptinidine 100994-57-8P, Leptinine

II 101009-59-0P, Leptinine I 215179-27-4P

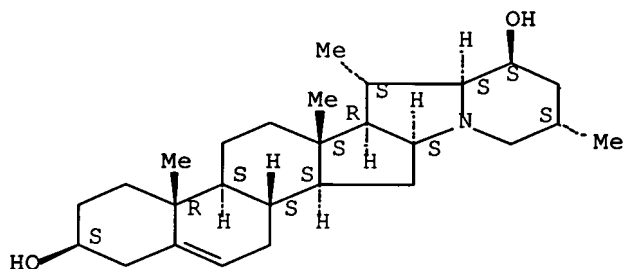
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(isolation of steroidal alkaloid glycosides from *Solanum orbignianum*)

RN 24884-17-1 HCAPLUS

CN Solanid-5-ene-3,23-diol, (3 β ,23 β)- (CA INDEX NAME)

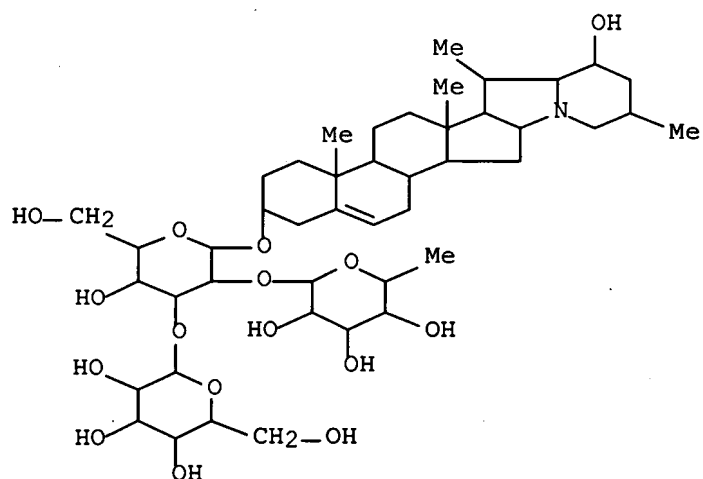
Absolute stereochemistry.



RN 100994-57-8 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

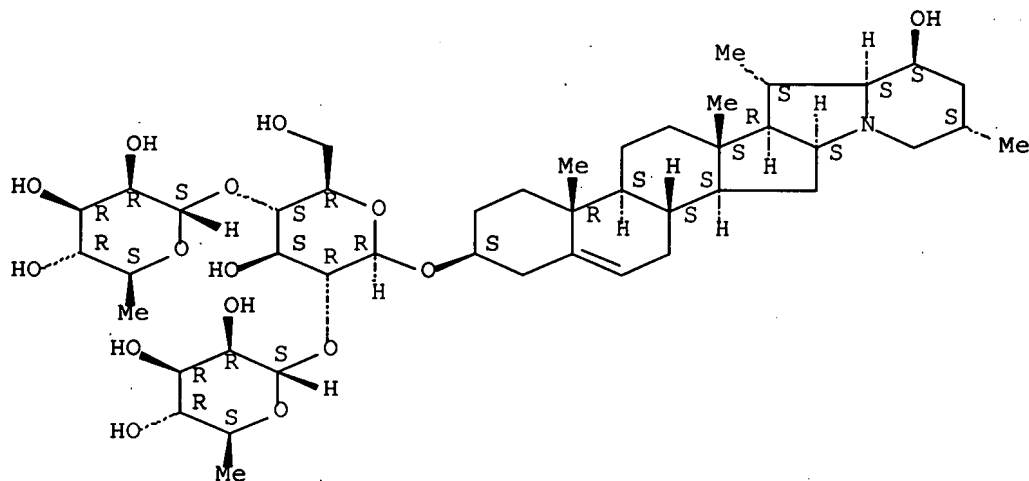
10/563,743



RN 101009-59-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

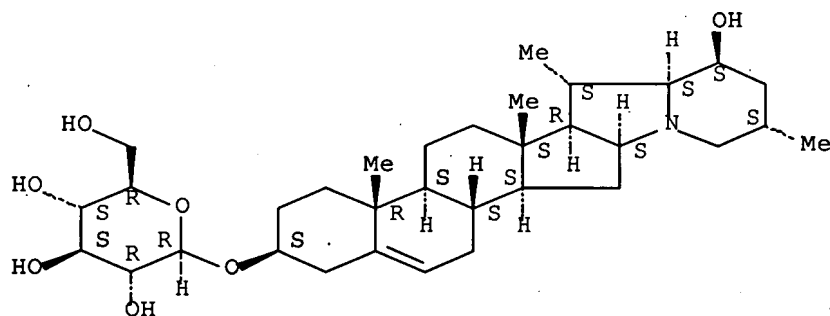
Absolute stereochemistry.



RN 215179-27-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl (9CI) (CA INDEX NAME).

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L124 ANSWER 20 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:245347 HCAPLUS Full-text

DOCUMENT NUMBER: 129:25177

TITLE: Preparative isolation of *Solanum tuberosum* L.
glycoalkaloids by MPLC

AUTHOR(S) : Soule, S.; Vazquez, A.; Gonzalez, G.; Moyna, P.;
Ferreira, F.

CORPORATE SOURCE: Catedra de Farmacognosia y Productos Naturales,
Facultad de Quimica, Montevideo, Urug.

SOURCE: Potato Research (1997), 40(4), 413-416

CODEN: PORHBW; ISSN: 0014-3065

PUBLISHER: European Association for Potato Research

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Apr 1998

AB A new, efficient and economic method employing Medium Pressure Liquid Chromatog. (MPLC) for the isolation of the two major *Solanum tuberosum* L. glycoalkaloids (α -solanine and α -chaconine) is described. Potato peelings are homogenized with 5% acetic acid, the glycoalkaloids purified by filtration through an XAD-2 column and then by precipitation from the aqueous solution. The resulting glycoalkaloid fraction was purified by MPLC using a Silica Gel column and a $\text{CHCl}_3:\text{MeOH}:2\% \text{NH}_4\text{OH}$ mixture (70:30:5) as mobile phase to yield pure α -chaconine and α -solanine. This methodol. can be used to obtain glycoalkaloids for entomol. and toxicol. research where large amts. of these compds. are required.

IT 20562-02-1P, α-Solanine 20562-03-2P,

α -Chaconine

RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST

(Analytical study); BIOL (Biological study); OCCU (Occurrence);

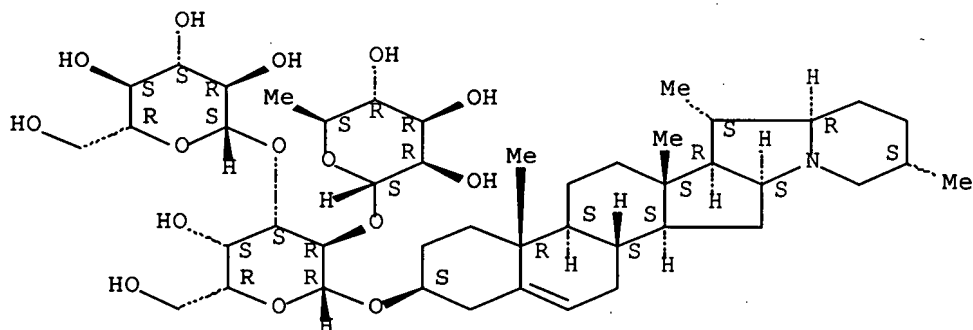
PREP (Preparation)

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(preparative isolation of Solanum tuberosum L. glycoalkaloids by
medium pressure liquid chromatog.)
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RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.

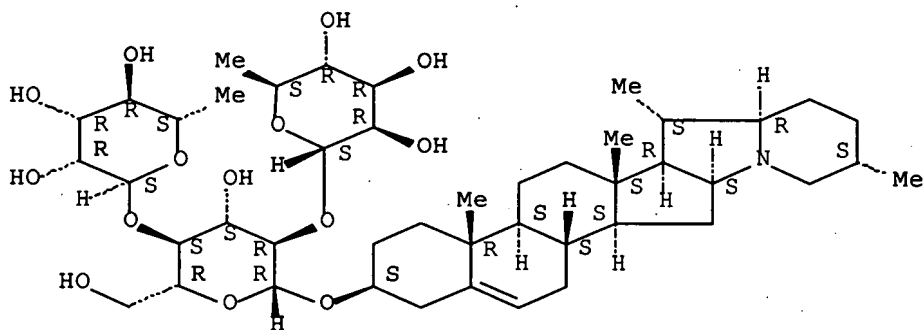


RN 20562-03-2 HCAPLUS

CN β-D-Glucopyranoside, (3β)-solanid-5-en-3-yl

O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 21 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:16918 HCAPLUS Full-text

DOCUMENT NUMBER: 128:112856

TITLE: Solanum alkaloids. 140. Steroidal alkaloid glycosides from Solanum suaveolens

AUTHOR(S): Ripperger, Helmut; Porzel, Andrea

CORPORATE SOURCE: Institute of Plant Biochemistry, Halle (Saale), D-06120, Germany

SOURCE: Phytochemistry (1997), 46(7), 1279-1282

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Jan 1998

AB In addition to khasianine, solamargine, xylosylsolamargine and solasonine, three steroidal alkaloid glycosides, solasuaveoline, dihydrosolasuaveoline and isosolasuaveoline, have been isolated from aerial parts of Solanum suaveolens. The structures have been assigned by NMR investigations as (25R)-3β-{0-β-D-

glucopyranosyl-(1→2)-O-β-D-glucopyranosyl-(1→4)-[O-α-L-rhamnopyranosyl-(1→2)]-β-D-galactopyranosyloxy}-22αN-spirosol-5-ene, (25R)-3β-{O-β-D-glucopyranosyl-(1→2)-O-β-D-glucopyranosyl-(1→4)-[O-α-L-rhamnopyranosyl-(1→2)]-β-D-galactopyranosyloxy}-5α,22αN-spirosolane and (25R)-3β-{O-β-D-glucopyranosyl-(1→6)-O-β-D-glucopyranosyl-(1→3)-[O-α-L-rhamnopyranosyl-(1→2)]-β-D-galactopyranosyloxy}-22αN-spirosol-5-ene, resp.

IT 19121-58-5P, Solasonine 20311-51-7P, Solamargine

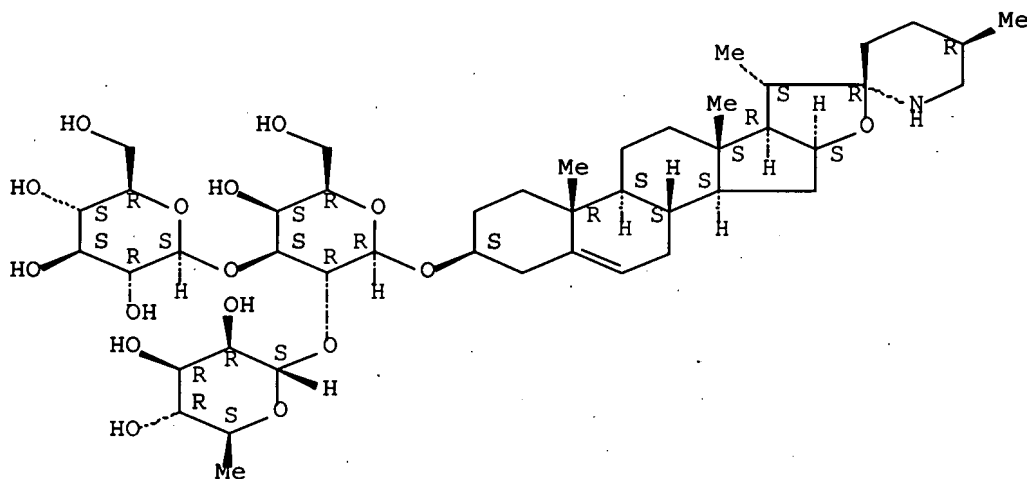
32449-98-2P, Khasianine

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(from *Solanum suaveolens*)

RN 19121-58-5 HCAPLUS

CN β-D-Galactopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→3)]- (CA INDEX NAME)

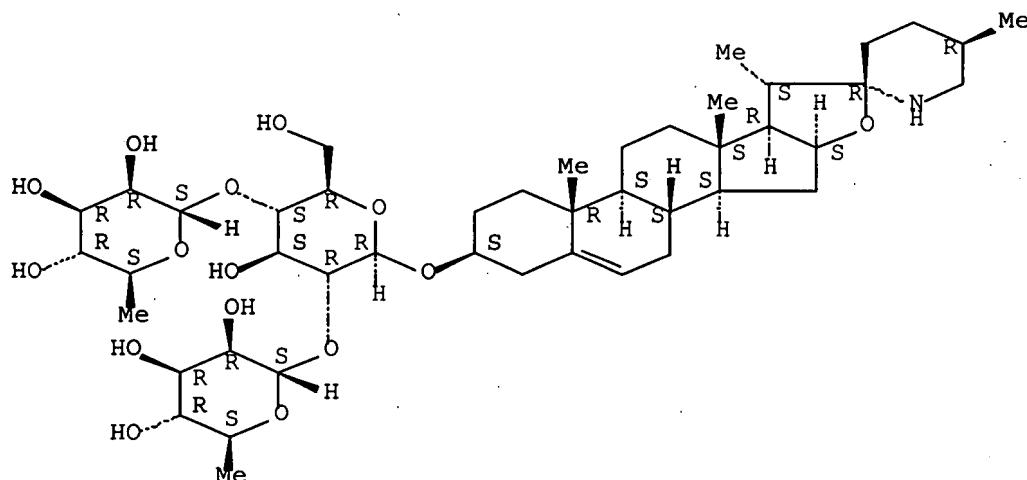
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β-D-Glucopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (CA INDEX NAME)

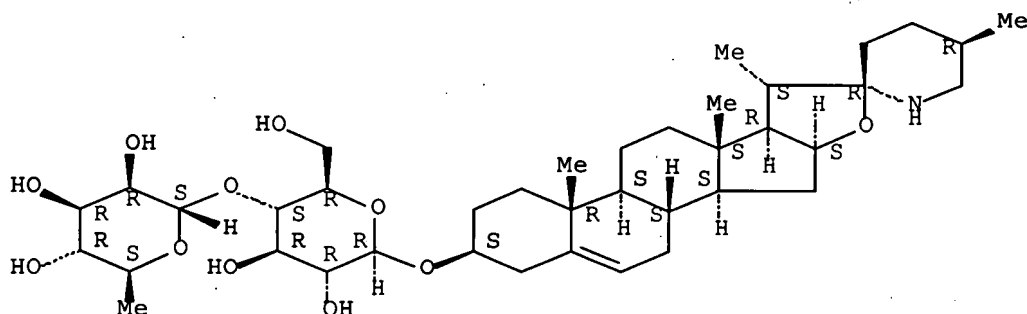
Absolute stereochemistry.



RN 32449-98-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
4-O-(6-deoxy- α -L-mannopyranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

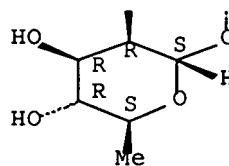
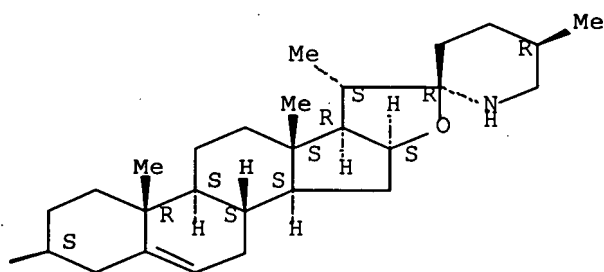
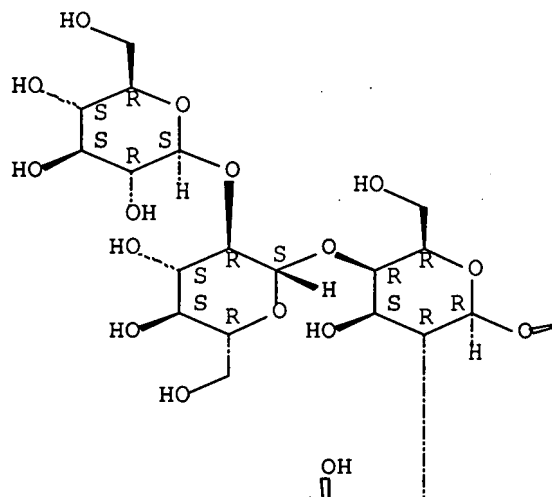


IT 201805-24-5P, Solasuaveoline 201805-25-6P,
Dihydrosolasuaveoline 201805-28-9P, Isosolasuaveoline
RL: BOC (Biological occurrence); BSU (Biological study,
unclassified); PRP (Properties); PUR (Purification or recovery);
BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(steroidal alkaloid glycosides from Solanum suaveolens)

RN 201805-24-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[O- β -D-
glucopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]-
(9CI) (CA INDEX NAME)

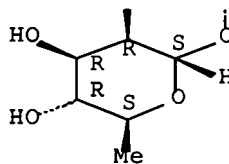
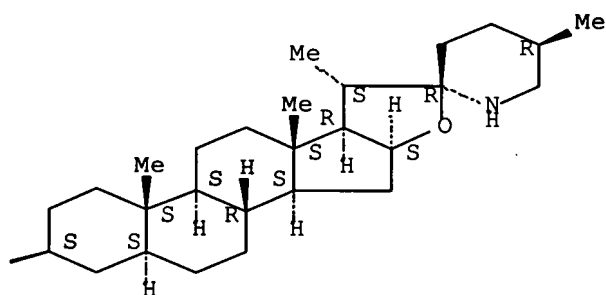
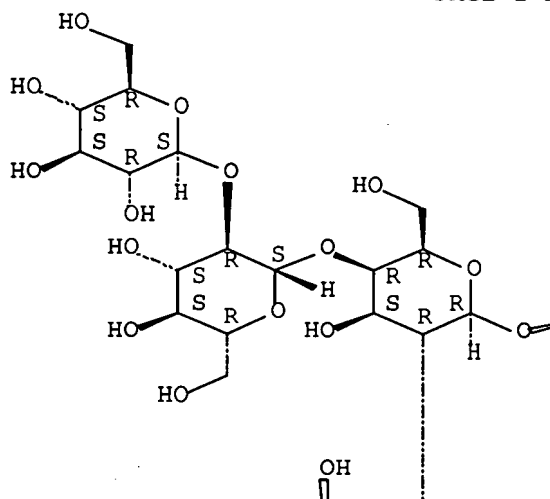
Absolute stereochemistry. Rotation (-).



RN 201805-25-6 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,5 α ,22 α ,25R) -
 spirosolan-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[O-
 β -D-glucopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-
 (1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

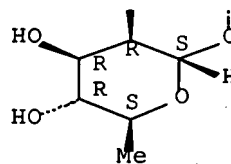
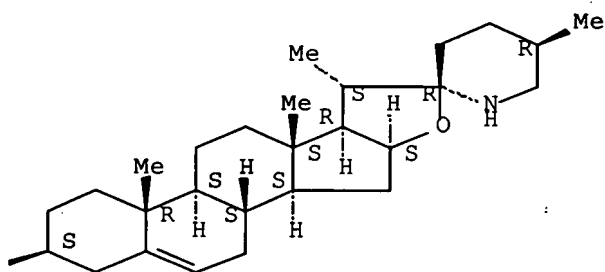
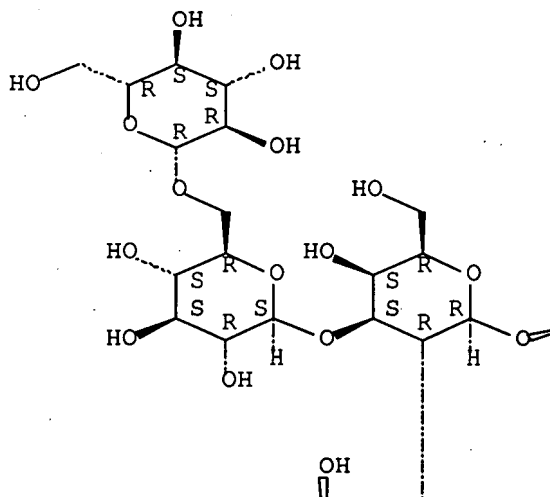
Absolute stereochemistry. Rotation (-).



RN 201805-28-9 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[O- β -D-glucopyranosyl-(1 \rightarrow 6)- β -D-glucopyranosyl-(1 \rightarrow 3)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



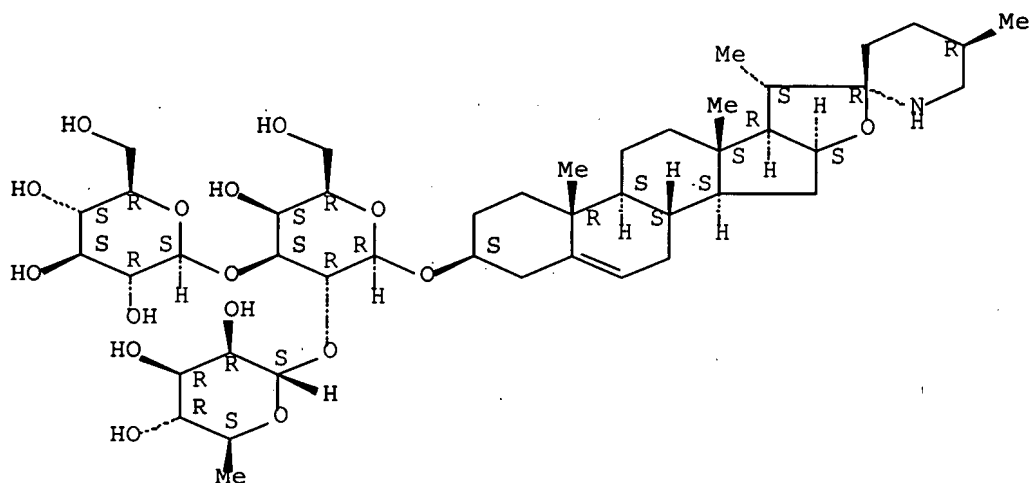
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L124 ANSWER 22 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:760036 HCAPLUS Full-text
DOCUMENT NUMBER: 126:72578.
TITLE: Steroidal glycosides, indiosides A-E, from
Solanum indicum
AUTHOR(S): Yahara, Shoji; Nakamura, Takanori; Someya,

10/563,743

Yukimi; Matsumoto, Tomoko; Yamashita, Tomoyuki;
Nohara, Toshihiro
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Kumamoto
University, Kumamoto, 862, Japan
SOURCE: Phytochemistry (1996), 43(6),
1319-1323
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Dec 1996
AB Together with isoanguivine, protodioscin, solasonine and solamargine, five new
steroidal glycosides, named indiosides A-E were obtained from *Solanum indicum*
(indiosides A and B from the fruits, indiosides C-E from the roots). Their
structures were characterized as: (23S,25R,26R)-spirost-5-en-3 β ,23,26-triol 3-
O-{ α -L-rhamnopyranosyl-(1 \rightarrow 2)-[β -D-xylopyranosyl-(1 \rightarrow 3)]- β -D-glucopyranoside}
(indioside A); (25R)-26-O- β -glucopyranosyl-22 α -methoxyfurost-5-en-3 β ,26-diol
3-O-{ α -L-rhamnopyranosyl-(1 \rightarrow 2)-[β -D-xylopyranosyl-(1 \rightarrow 3)]- β -D-
glucopyranoside} (indioside B); (25R)-26-O- β -D-glucopyranosyl-furost-5-en-
3 β ,22 ξ ,26-triol 3-O-{ α -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-xylopyranosyl-(1 \rightarrow 3)- β -D-
galactopyranoside} (indioside C); (25R)-26-O-(β -D-glucopyranosyl)-furost-5-en-
3 β ,22 ξ ,26-triol 3-O-{ α -L-rhamnopyranosyl-(1 \rightarrow 2)-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -
D-galactopyranoside} (β -solatrioside) (indioside D); diosgenin 3-O-{ α -L-
rhamnopyranosyl-(1 \rightarrow 2)-[β -D-xylopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranoside}
(indioside E).
IT 19121-58-5, Solasonine 20311-51-7, Solamargine
163252-96-8, Isoanguivine
RL: BOC (Biological occurrence); BSU (Biological study,
unclassified); BIOL (Biological study); OCCU (Occurrence)
(from *Solanum indicum*)
RN 19121-58-5 HCAPLUS
CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-
yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.

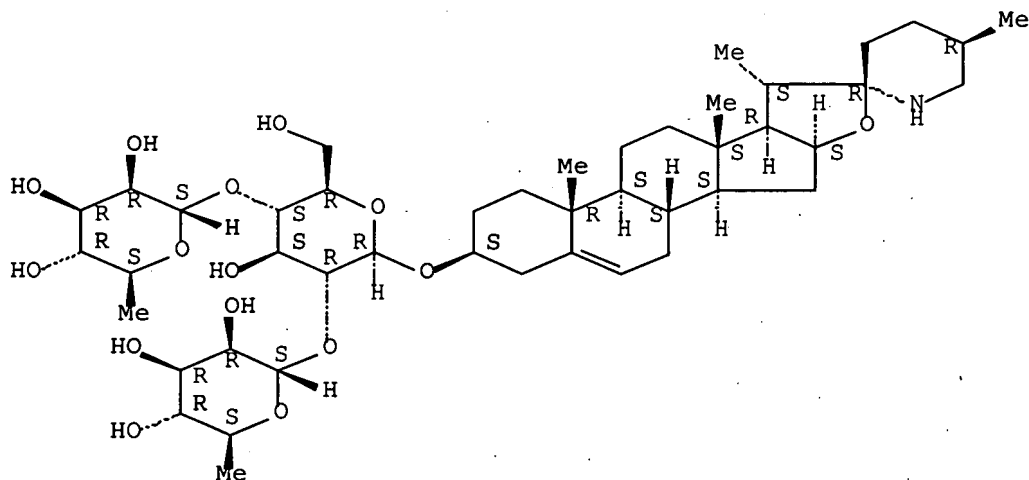


RN 20311-51-7 HCAPLUS

10/563,743

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

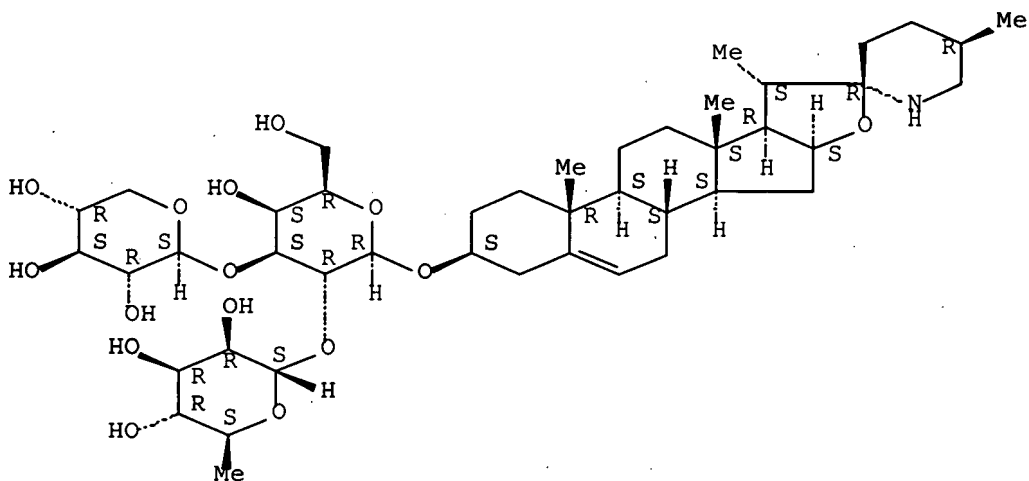
Absolute stereochemistry.



RN 163252-96-8 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 185253-00-3P

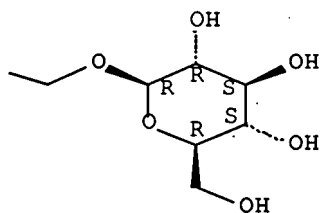
RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(preparation and properties of)

RN 185253-00-3 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,25R)-spirost-5-en-3-yl

O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- [β -D-glucopyranosyl-(1 \rightarrow 3)] - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Currently available stereo shown.



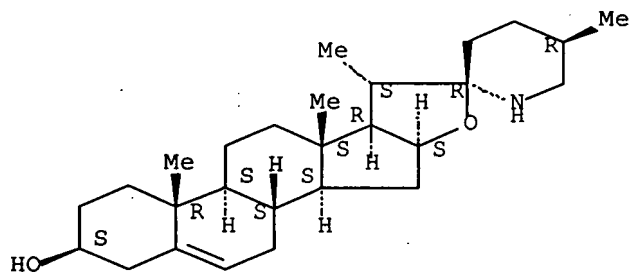
L124 ANSWER 23 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:550660 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:190634
 TITLE: Solanelagnin, a novel glycoalkaloid from *Solanum elaeagnifolium*
 AUTHOR(S): Hanna, A. G.; Elgamal, M. H. A.; Yassin, F. Y.
 CORPORATE SOURCE: Natural Products Department, National Research Centre, Cairo, Egypt
 SOURCE: Fitoterapia (1996), 67(3), 223-226
 CODEN: FTRPAE; ISSN: 0367-326X
 PUBLISHER: Invernizzi della Beffa SpA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 14 Sep 1996
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A new steroidal alkaloid was isolated from the stalk of *S. elaeagnifolium* and identified as solanelagnin (I).
 IT 126-17-0P, Solasodine 19121-58-5P, Solasonine 20311-51-7P, Solamargine 181023-53-0P, Solanelagnine
 RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (solanelagnin from *Solanum elaeagnifolium*)
 RN 126-17-0 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

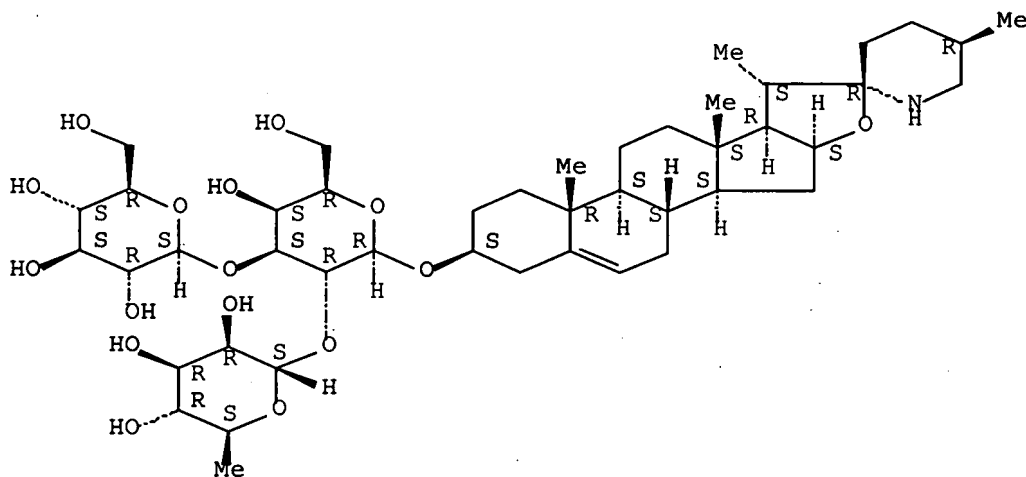
10/563,743



RN 19121-58-5 HCAPLUS

CN β-D-Galactopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-β-D-glucopyranosyl-(1→3)]- (CA INDEX NAME)

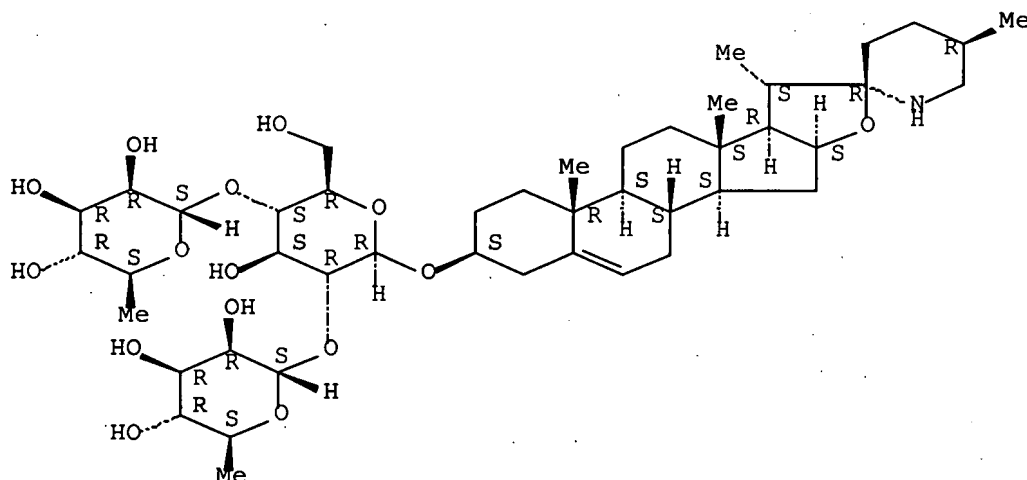
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β-D-Glucopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (CA INDEX NAME)

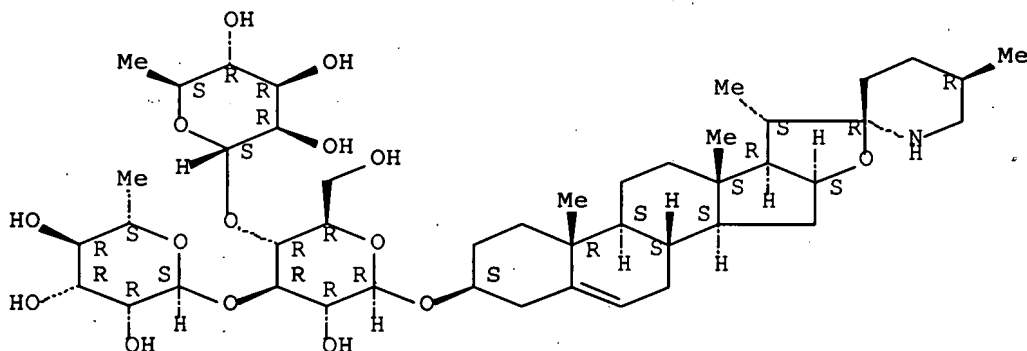
Absolute stereochemistry.



RN 181023-53-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 3)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 24 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:549835 HCAPLUS Full-text

DOCUMENT NUMBER: 125:190772

TITLE: Stimulation of the growth and solamargine
production by *Solanum paludosum* multiple shoot
cultures using a new culture medium

AUTHOR(S): El Badaoui, H.; Morard, P.; Henry, M.

CORPORATE SOURCE: Laboratoire de Botanique et Mycologie, Faculte
des Sciences Pharmaceutiques et Biologiques,
Nancy, 54001, Fr.

SOURCE: Plant Cell, Tissue and Organ Culture (
1996), 45(2), 153-158

CODEN: PTCEDJ; ISSN: 0167-6857

PUBLISHER: Kluwer

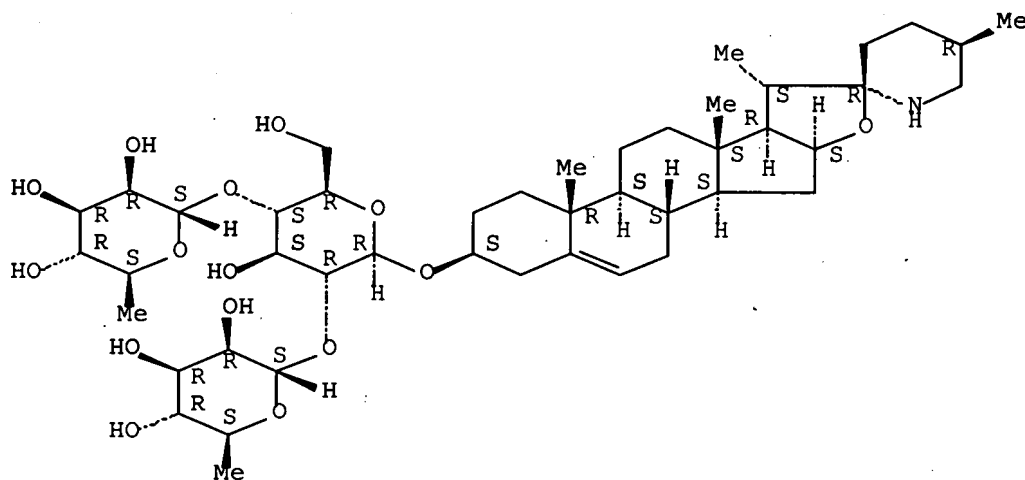
DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Sep 1996

- AB Organogenic callus cultures of *Solanum paludosum* were obtained from root, hypocotyl and cotyledon explants of plantlets cultured in sterile conditions. These callus cultures developed multiple shoots which proliferated in Murashige and Skoog basal liquid medium. These multiple shoots produced solamargine, the main steroidal glycoalkaloid present in the unripe fruits. The optimization of the macronutrient composition of the liquid medium was performed by a method derived from the plant composition. This approach results in the establishment of an appropriate medium (SPOM medium) suitable for the improvement of both growth and solamargine production by multiple shoot cultures of *S. paludosum*.
- IT 20311-51-7P, Solamargine
 RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation)
 (stimulation of the growth and solamargine production by *Solanum paludosum* multiple shoot cultures using a new culture medium)
- RN 20311-51-7 HCAPLUS
- CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 25 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:449637 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:81887
 TITLE: Comparison of Glycoalkaloid Content of Fresh and Freeze-Dried Potato Leaves Determined by HPLC and Colorimetry
 AUTHOR(S): Dao, Lan; Friedman, Mendel
 CORPORATE SOURCE: Western Regional Research Center, Agricultural Research Service, Albany, CA, 94710, USA
 SOURCE: Journal of Agricultural and Food Chemistry (1996), 44(8), 2287-2291
 CODEN: JAFCAU; ISSN: 0021-8561
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 31 Jul 1996

AB As part of a program to control the biosynthesis of Solanum glycoalkaloids in potatoes, an HPLC assay was used to measure the specific α -chaconine and α -solanine content of greenhouse-grown potato leaves at different stages of maturity. Comparative studies were done with the bromophenol blue titration assay for total glycoalkaloids. Foliar glycoalkaloids can be extracted with 5% aqueous acetic acid, anal. of glycoalkaloids with freeze-dried leaf powders was more reproducible than with fresh leaves, and the bromophenol colorimetric method gave higher values than HPLC. As little as one leaf from a growing plantlet can be analyzed with the HPLC assay. Large variations in both α -chaconine and α -solanine contents of fresh leaves suggest that potato foliar glycoalkaloids should be determined by HPLC from freeze-dried rather than fresh leaves.

IT 20562-02-1P, α -Solanine 20562-03-2P, α -Chaconine

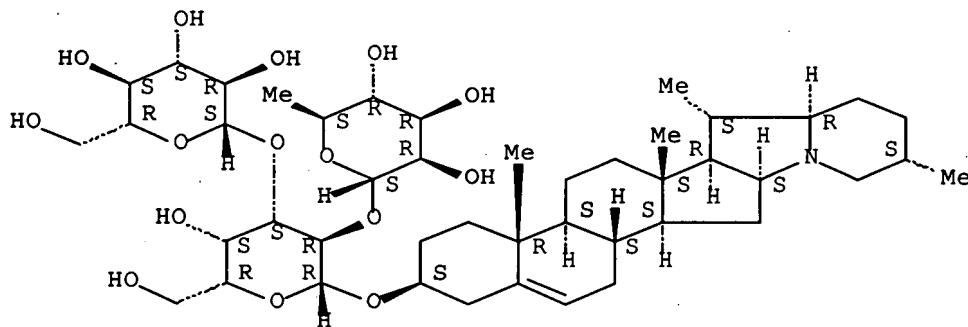
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(glycoalkaloid content of fresh and freeze-dried potato leaves determined by HPLC and colorimetry)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

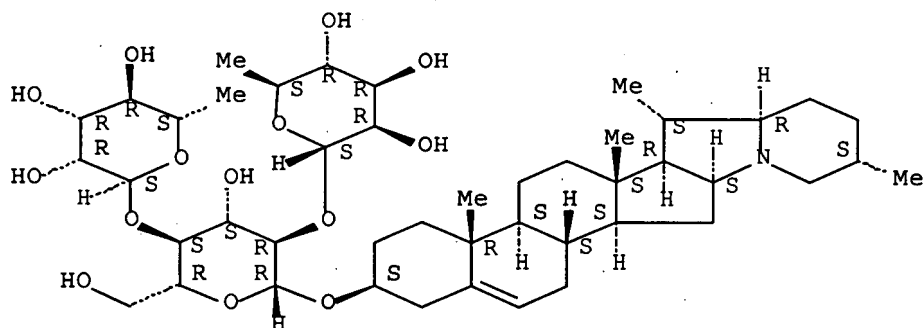
Absolute stereochemistry.



RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 26 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:235947 HCAPLUS Full-text

DOCUMENT NUMBER: 124:284342

TITLE: Steroidal alkaloids and saponins of *Solanum sepicula* (Dun)

AUTHOR(S): Sarg, Taha M.; Glombitza, Karl W.; Farrag, Nawal M.; Hafez, Samia S.; Abbas, Fawkeya A.

CORPORATE SOURCE: Faculty Pharmacy, Zagazig University, Egypt
SOURCE: Egyptian Journal of Pharmaceutical Sciences (1995), 36(1-6), 271-85

CODEN: EJPSBZ; ISSN: 0301-5068

PUBLISHER: National Information and Documentation Centre

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Apr 1996

AB In addition to choline chloride, four steroidal alkaloids and one steroidal saponins were isolated from the alkaloidal fraction of *S. sepicula*. The latter was isolated for the first time from the genus *Solanum*. The isolated compds. were identified by ¹H and ¹³C NMR data anal.

IT 77-59-8P, Tomatidine 474-08-8P, Demissidine

17406-45-0P 20562-02-1P 175668-91-4P

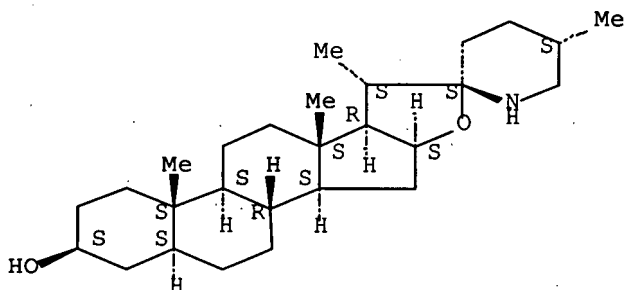
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(steroidal alkaloids and saponins isolated from *Solanum sepicula*)

RN 77-59-8 HCAPLUS

CN Spirosolan-3-ol, (3 β ,5 α ,22 β ,25S)- (CA INDEX NAME)

Absolute stereochemistry.

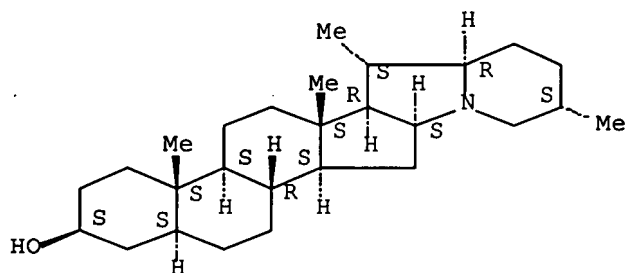


10/563,743

RN 474-08-8 HCAPLUS

CN Solanidan-3-ol, (3 β ,5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

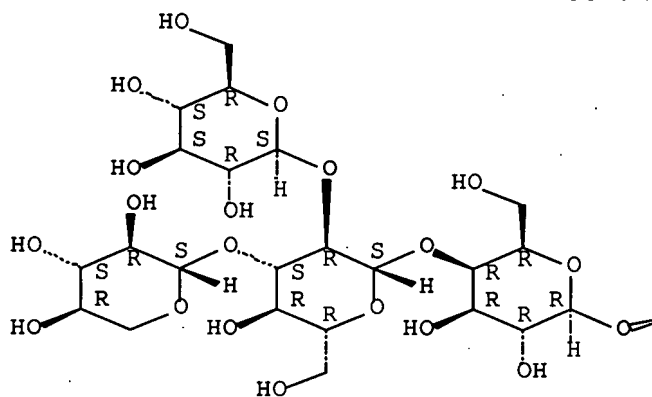


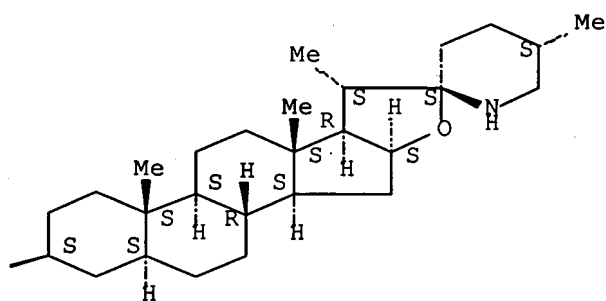
RN 17406-45-0 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,5 α ,22 β ,25S)-
spirosolan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

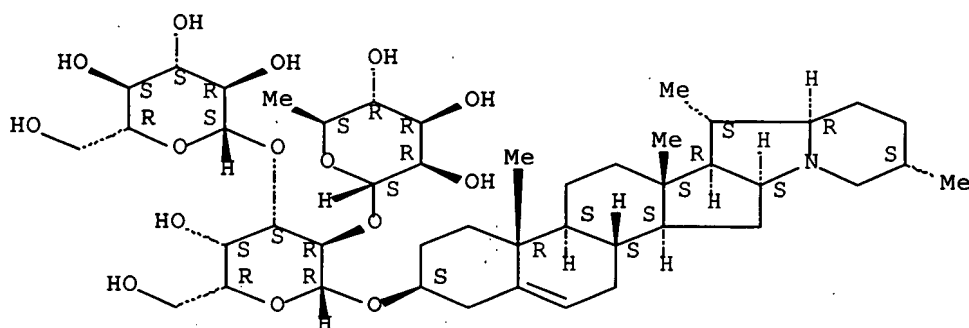




RN 20562-02-1 HCAPLUS

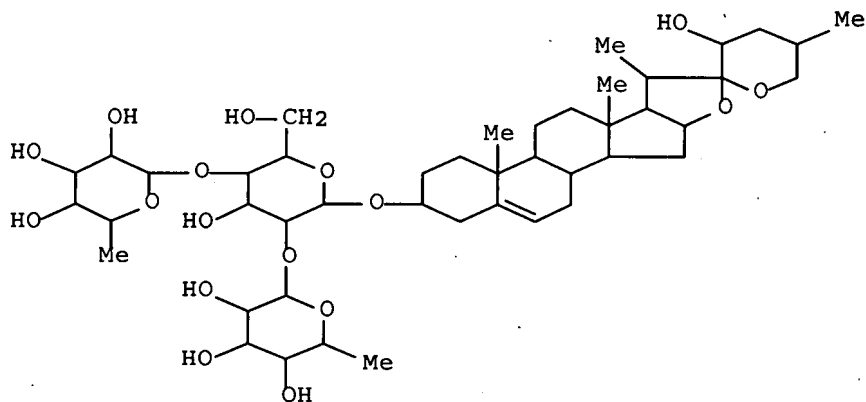
CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



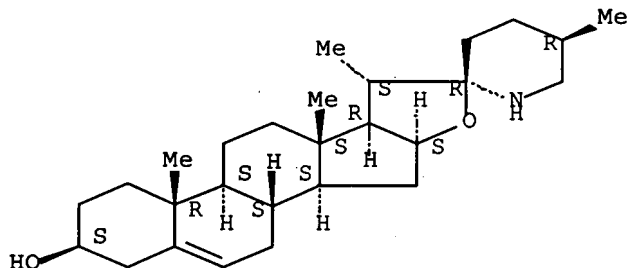
RN 175668-91-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23S,25R)-23-hydroxyspirost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy-
 α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)



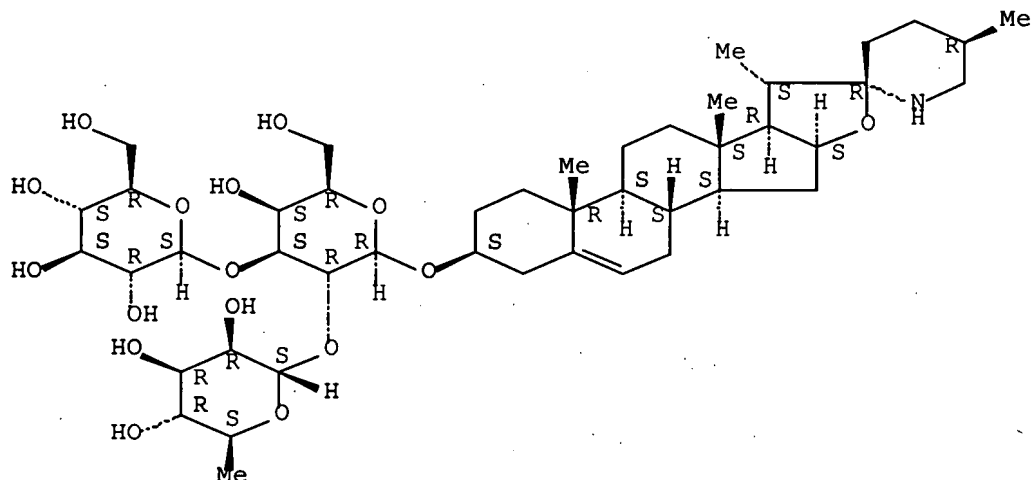
L124 ANSWER 27 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:69646 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:140959
 TITLE: Glycoalkaloids from the fruits of *Solanum flaccidum*.
 AUTHOR(S): de Almeida, Adelia Emilia; Rocca, Maria Aparecida.
 CORPORATE SOURCE: Fac. Ciencias Farmaceuticas, UNESP, Araraquara, 14801-902, Brazil
 SOURCE: Revista de Ciencias Farmaceuticas (Sao Paulo) (1995), 16, 111-18
 CODEN: RCIFDN; ISSN: 0101-3793
 PUBLISHER: Universidade Estadual Paulista
 DOCUMENT TYPE: Journal
 LANGUAGE: Portuguese
 ED Entered STN: 01 Feb 1996
 AB From the fruits of *S. flaccidum*, two glycoalkaloids (solamargine and solasonine) and one aglycon (solasodine) were isolated and identified.
 IT 126-17-0P, (Solasodine) 19121-58-5P, Solasonine)
 20311-51-7P, (Solamargine
 RL: PUR (Purification or recovery); PREP (Preparation)
 (from *Solanum flaccidum* fruits)
 RN 126-17-0 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 19121-58-5 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

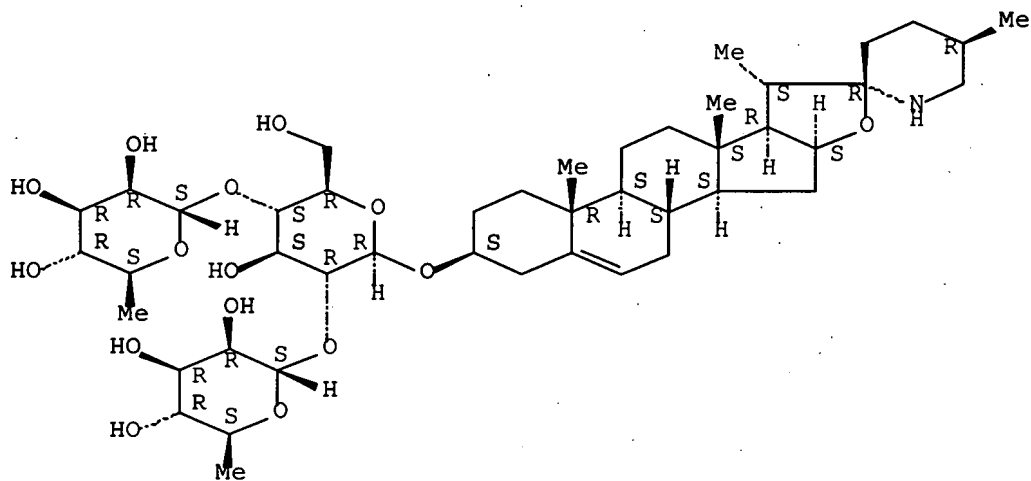
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 28 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:748059 HCAPLUS Full-text

DOCUMENT NUMBER: 123:165113

TITLE: Steroid alkaloid glycosides from *Solanum robustum*

AUTHOR(S): Ripperger, Helmut

CORPORATE SOURCE: Inst. Plant Biochem., Halle (Saale), D-06120, Germany

SOURCE: *Phytochemistry* (1995), 39(6), 1475-7

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Aug 1995

AB Solamargine, solasonine, N-hydroxyrobustine and a new glycoalkaloid, N-hydroxysolamargine, were isolated from the leaves of *S. robustum*, the structure of which was elucidated.

IT 19121-58-5P, Solasonine 20311-51-7P, Solamargine

156122-58-6P, N-Hydroxyrobustine 167278-36-6P

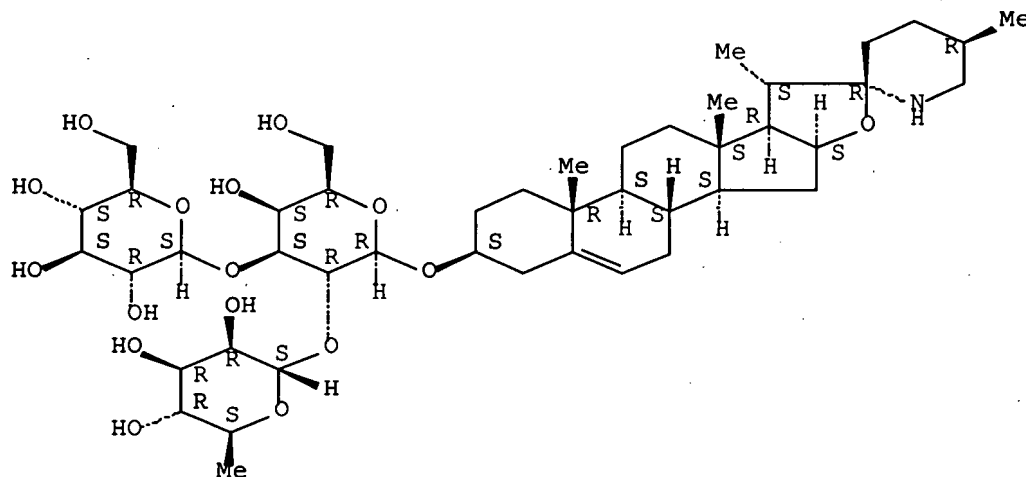
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(steroid alkaloid glycosides from *Solanum robustum*)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

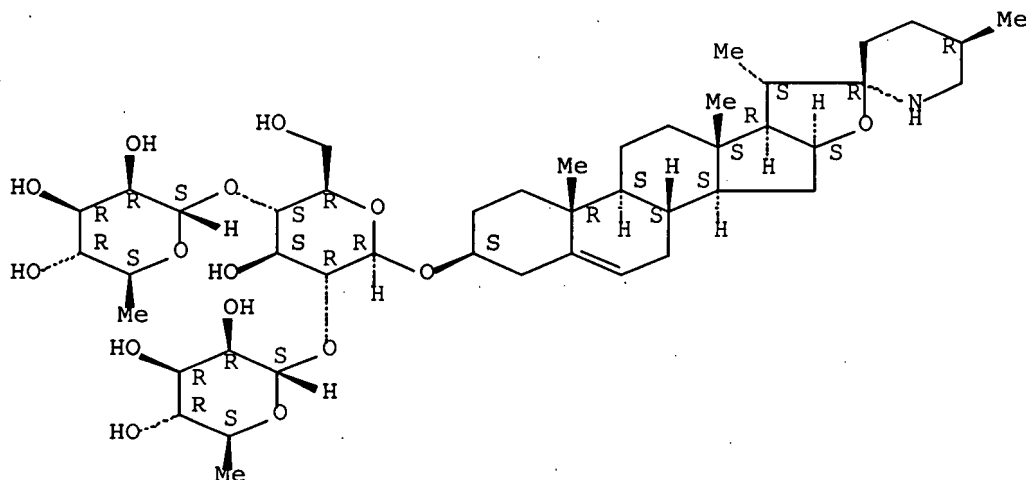
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

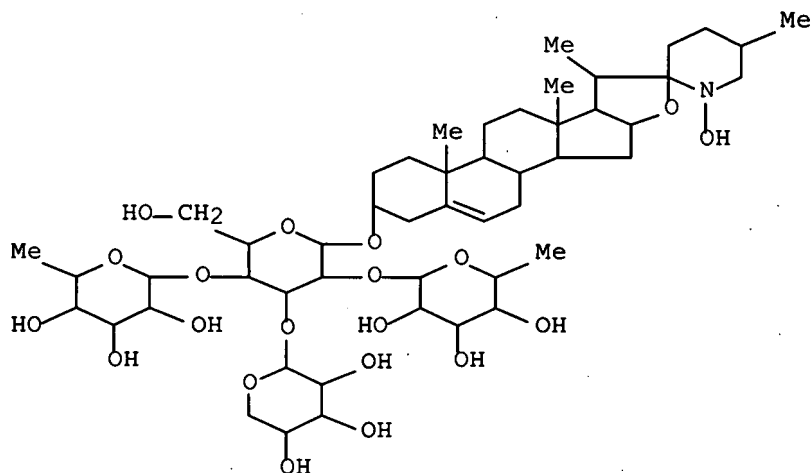
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



RN 156122-58-6 HCAPLUS

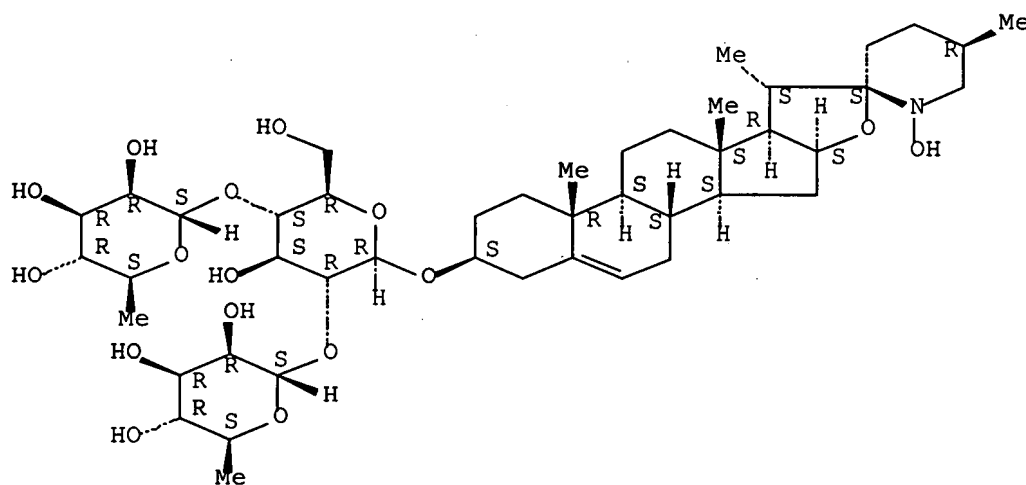
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-28-hydroxyspirosol-5-en-3-yl O- α -L-arabinopyranosyl-(1 \rightarrow 3)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)



RN 167278-36-6 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-28-hydroxyspirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 29 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:200296 HCAPLUS Full-text

DOCUMENT NUMBER: 108:200296

TITLE: The metabolism of solanidine by microsomal fractions from *Solanum chacoense*

AUTHOR(S): Osman, S.; Sinden, S. L.; Deahl, K.; Moreau, R.

CORPORATE SOURCE: ARS, USDA, Philadelphia, PA, 19118, USA

SOURCE: *Phytochemistry* (1987), 26(12), 3163-5

CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 11 Jun 1988

AB Microsomal fractions prepared from leaves of selected clones of *S. chacoense* after addition of NADPH converted solanidine to a 23 β -hydroxysolanidine glycoside and an unknown compound, apparently an isomeric hydroxysolanidine.

IT 80-78-4DP, hydroxyl derivative 24884-17-1P

RL: BSU (Biological study, unclassified); MFM (Metabolic formation);

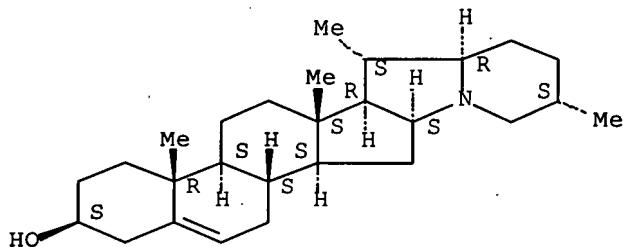
BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)

(formation of, in solanidine metabolism by *Solanum chacoense* leaf microsome in NADPH presence)

RN 80-78-4 HCAPLUS

CN Solanid-5-en-3-ol, (3 β)- (CA INDEX NAME)

Absolute stereochemistry.

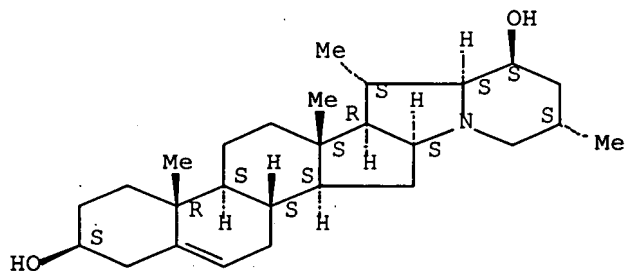


RN 24884-17-1 HCAPLUS

10/563,743

CN Solanid-5-ene-3,23-diol, (3 β ,23 β)- (CA INDEX NAME)

Absolute stereochemistry.



IT 24884-17-1DP, glycosides

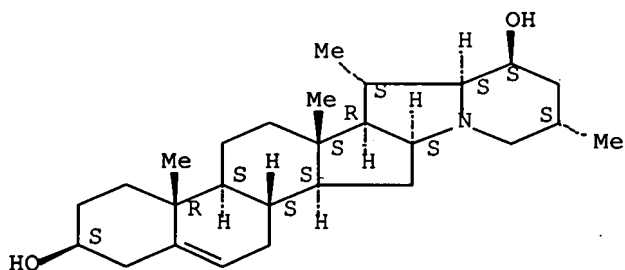
RL: BSU (Biological study, unclassified); MFM (Metabolic formation);
BIOL (Biological study); FORM (Formation, nonpreparative); PREP
(Preparation)

(formation of, in solanidine metabolism by Solanum chacoense
microsome in NADPH presence)

RN 24884-17-1 HCAPLUS

CN Solanid-5-ene-3,23-diol, (3 β ,23 β)- (CA INDEX NAME)

Absolute stereochemistry.



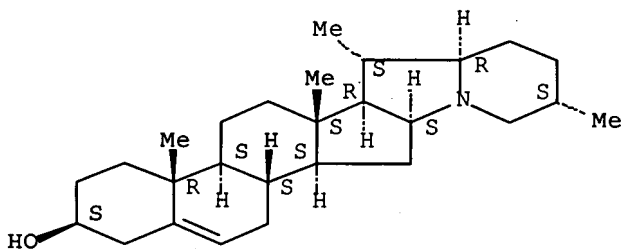
IT 80-78-4, Solanidine

RL: BPR (Biological process); BSU (Biological study, unclassified);
BIOL (Biological study); PROC (Process)
(metabolism of, by microsome of Solanum chacoense leaf in NADPH
presence)

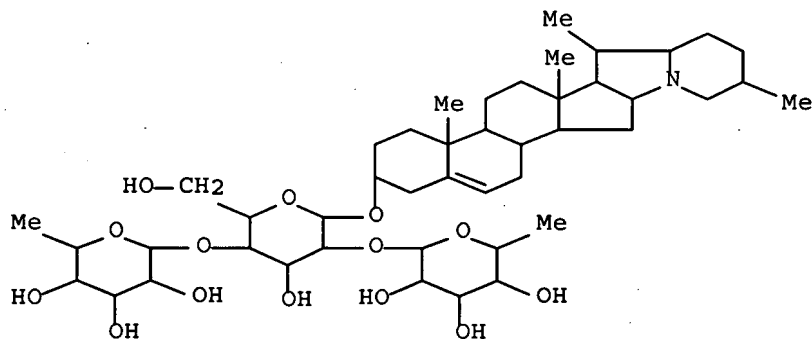
RN 80-78-4 HCAPLUS

CN Solanid-5-en-3-ol, (3 β)- (CA INDEX NAME)

Absolute stereochemistry.

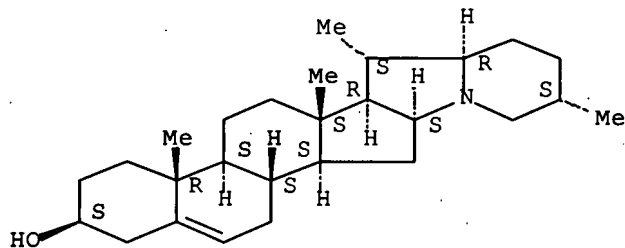


IT 112927-28-3P 114411-91-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 112927-28-3 HCAPLUS
 CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]-, labeled with carbon-14 (9CI) (CA
 INDEX NAME)



RN 114411-91-5 HCAPLUS
 CN Solanid-5-en-3-ol, (3 β)-, labeled with carbon-14 (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 30 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1982:67204 HCAPLUS Full-text
 DOCUMENT NUMBER: 96:67204
 TITLE: Isolation of solasonine from glucoalkaloid
 mixtures by fermentation
 AUTHOR(S): Regerat, F.; Pourrat, Henri
 CORPORATE SOURCE: Lab. Mat. Med. Chim. Ferment., Fac. Pharm.,
 Clermont-Ferrand, 63001, Fr.
 SOURCE: Planta Medica (1981), 43(3), 280-4
 CODEN: PLMEAA; ISSN: 0032-0943
 DOCUMENT TYPE: Journal
 LANGUAGE: French
 ED Entered STN: 12 May 1984

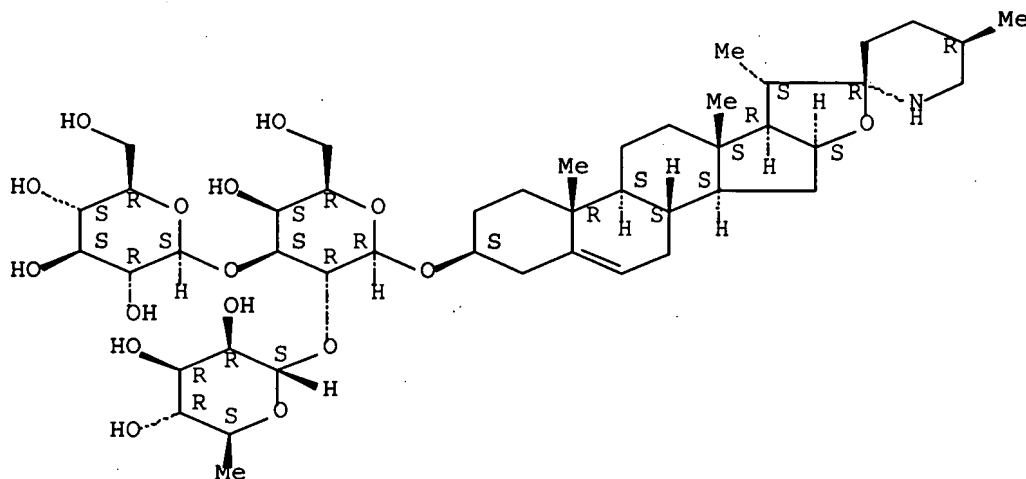
AB A strain of *Aspergillus niger* grown on a medium containing 60% solamargine (I) [20311-51-7] and 40% solasonine (II) [19121-58-5] was able to selectively hydrolyze I. It was thus possible to extract pure II. Different parameters influencing the speed of hydrolysis of I were examined

IT 19121-58-5P
 RL: PUR (Purification or recovery); PREP (Preparation)
 (purification of, from solamargine with *Aspergillus niger*)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.

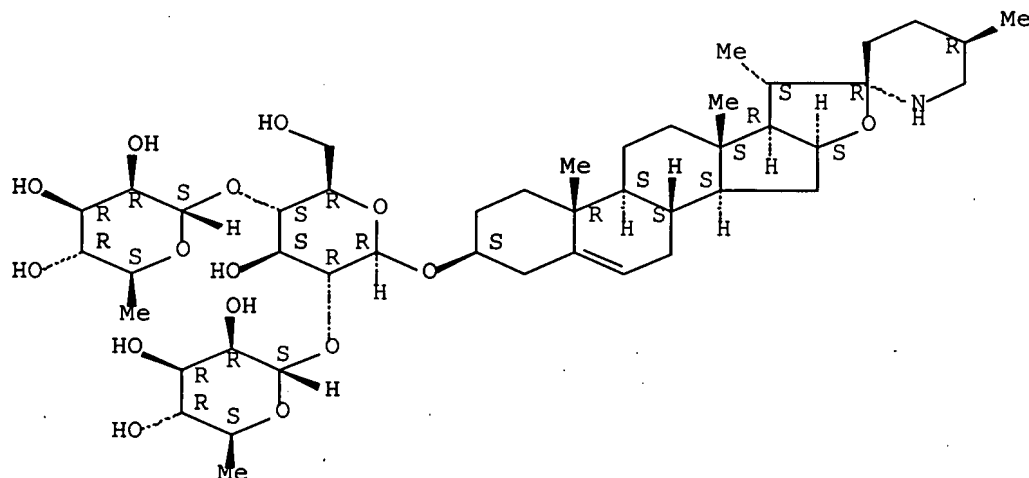


IT 20311-51-7
 RL: BIOL (Biological study)
 (solasonine purification from, with *Aspergillus niger*)

RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 31 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:3270 HCAPLUS Full-text

DOCUMENT NUMBER: 96:3270

TITLE: A simple method for purification of glycoalkaloids in the quantitative estimation of *Solanum khasianum*

AUTHOR(S): Bezbaruah, Balamani

CORPORATE SOURCE: Reg. Res. Lab., Assam, India

SOURCE: *Planta Medica* (1981), 43(1), 77-81

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Steroid glycoalkaloids were purified from dried berries of *S. khasianum* by acid extraction, neutralization, dissoln. of the sediment in EtOH, removal of plant pigments with hydroxylapatite (I), and filtration through filter paper. The glycoalkaloid mixture obtained by this method was .apprx.70% pure and contained mainly solasonine and solamargine. The alkaloids were not adsorbed by I, but the pigments which were adsorbed could be eluted from I, if desired, by EtOH-H₂O mixts. The method is simple, easy to perform, and several simultaneous extns. of the glycoalkaloids can be run. The procedure may be useful for selecting plants with higher alkaloid yields.

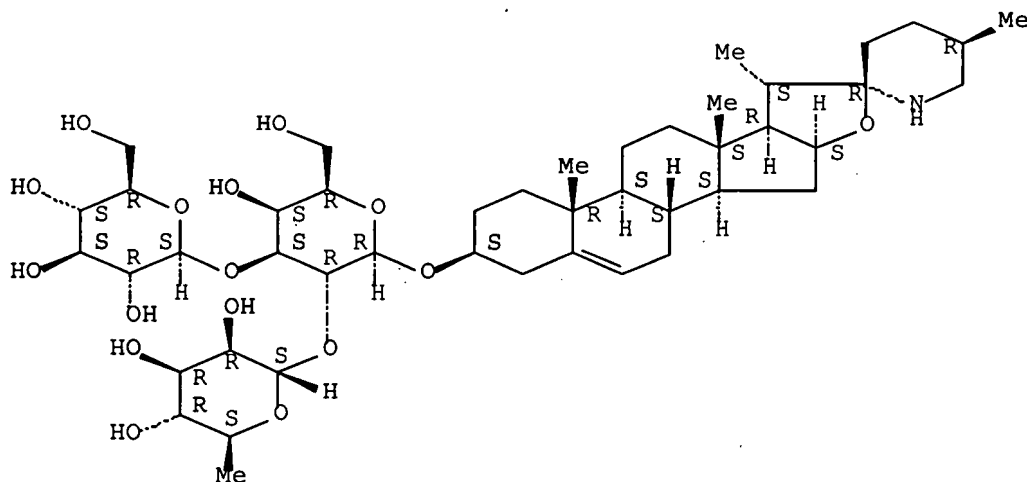
IT 19121-58-5P 20311-51-7P

RL: PUR (Purification or recovery); PREP (Preparation)
(purification of, of *Solanum khasianum*)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

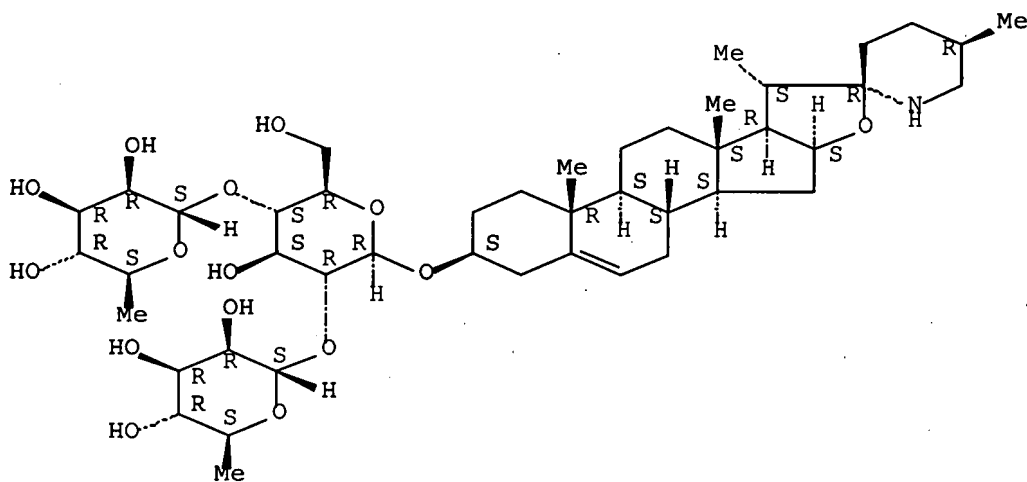
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 32 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:103676 HCAPLUS Full-text

DOCUMENT NUMBER: 94:103676

TITLE: Steroidal alkaloids from Solanum khasianum:
application of carbon-13 NMR spectroscopy to
their structural elucidation

AUTHOR(S): Mahato, Shashi B.; Sahu, Niranjana P.; Ganguly,
Amar N.; Kasai, Ryoji; Tanaka, Osamu

CORPORATE SOURCE: Indian Inst. Exp. Med., Calcutta, 700 032, India

SOURCE: Phytochemistry (Elsevier) (1980),
19(9), 2017-20

DOCUMENT TYPE:

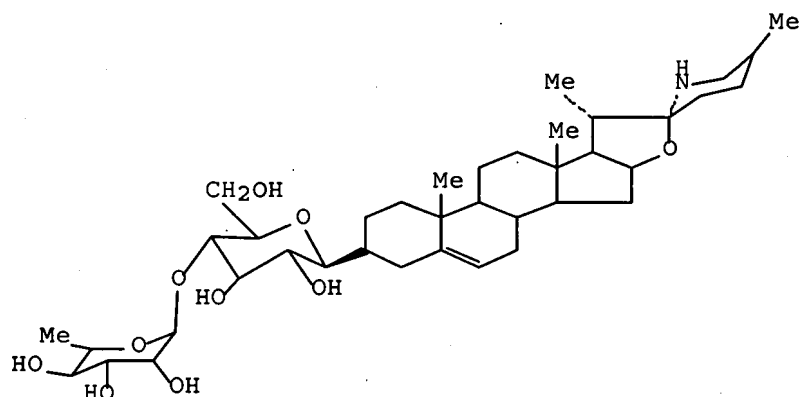
Journal

LANGUAGE:

English

ED Entered STN: 12 May 1984

GI



I

AB The solasodine glycosides, solasonine, solamargine, and khasianine were isolated from berries of *S. khasianum* and characterized by their ^{13}C -NMR. The structure of khasianine was elucidated as steroidal glycoside I.

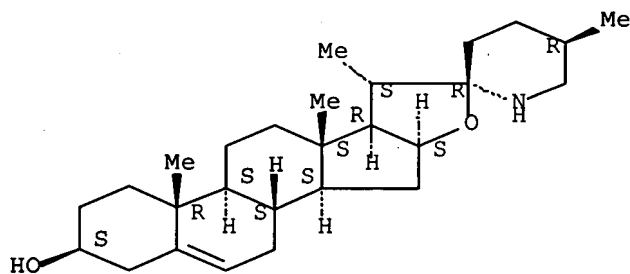
IT 126-17-0

RL: PRP (Properties)
(carbon-13 NMR of)

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, ($3\beta, 22\alpha, 25\text{R}$)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



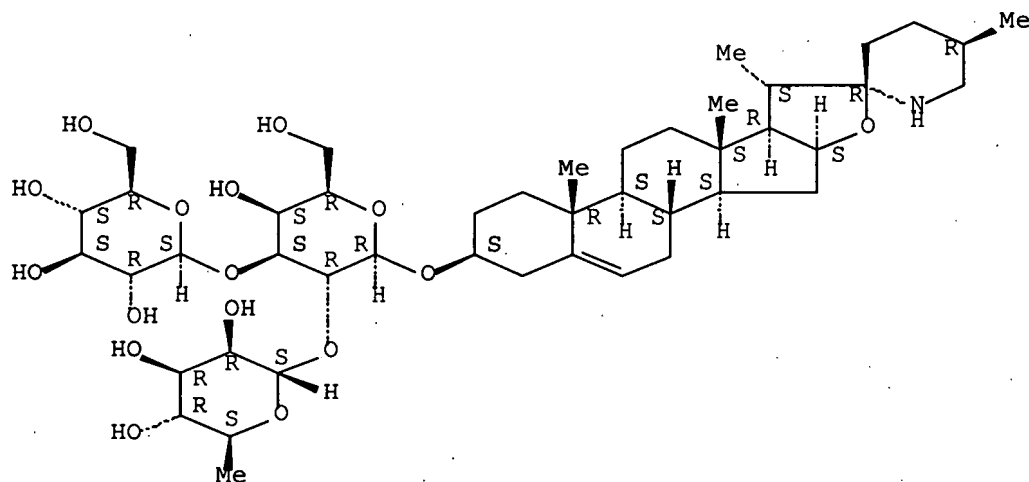
IT 19121-58-5P 20311-51-7P

RL: PREP (Preparation)
(from *Solanum khasianum*)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, ($3\beta, 22\alpha, 25\text{R}$)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

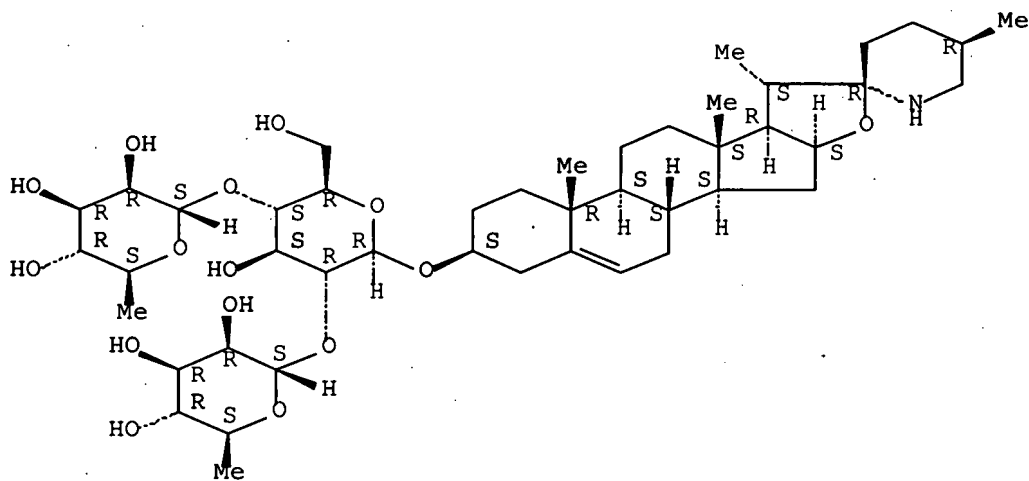
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 32449-98-2P

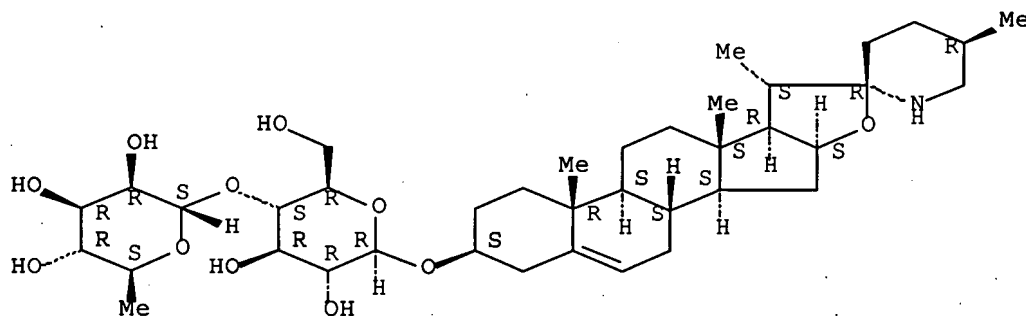
RL: PREP (Preparation)

(from Solanum khasianum, mol. structure determination of)

RN 32449-98-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 4-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1976:147242 HCAPLUS Full-text

DOCUMENT NUMBER: 84:147242

TITLE: An assay method for estimation of solasodine of Solanum species

AUTHOR(S): Mahato, S. B.; Saikia, B. K.; Sahu, N. P.; Chakravarti, R. N.

CORPORATE SOURCE: Indian Inst. Exp. Med., Calcutta, India

SOURCE: Journal of the Institution of Chemists (India) (1975), 47, Pt. 6, 237-8

CODEN: JOICA7; ISSN: 0020-3254

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Solasonine was extracted from dried fruit with EtOH, hydrolyzed with HCl to form solasodine-HCl, then treated with NH₄OH to yield solasodine (I), which was crystallized from EtOH. By using this method for the determination of I in whole fruit, skin, and whole seeds of *S. khasianum* it was found that assay of the whole fruit alone was sufficient in determining the content of I (.apprx.3%).

IT 19121-58-5P

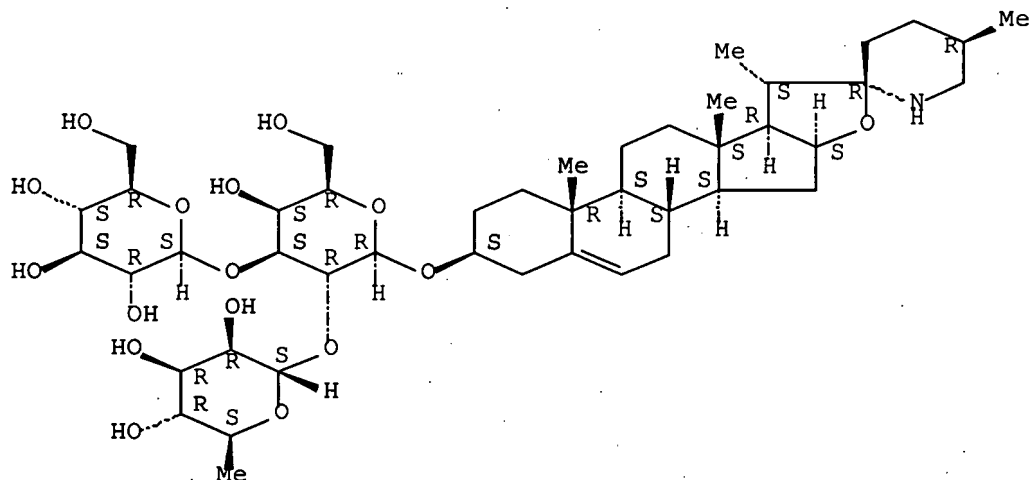
RL: ANT (Analyte); ANST (Analytical study); PREP (Preparation)

(determination and purification of, from fruit of Solanum)

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



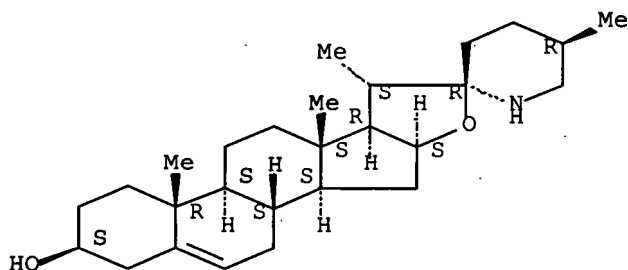
IT 126-17-0P

RL: PUR (Purification or recovery); PREP (Preparation)
(purification of, from fruit of Solanum)

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3β,22α,25R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L124 ANSWER 34 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1976:105933 HCAPLUS Full-text

DOCUMENT NUMBER: 84:105933

TITLE: Solanum alkaloids. XVII. Sugar unit of solamargine

AUTHOR(S): Briggs, Lindsay H.; Cambie, Richard C.; Hyslop, Derek M.

CORPORATE SOURCE: Dep. Chem., Univ. Auckland, Auckland, N. Z.

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (23), 2455-7

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

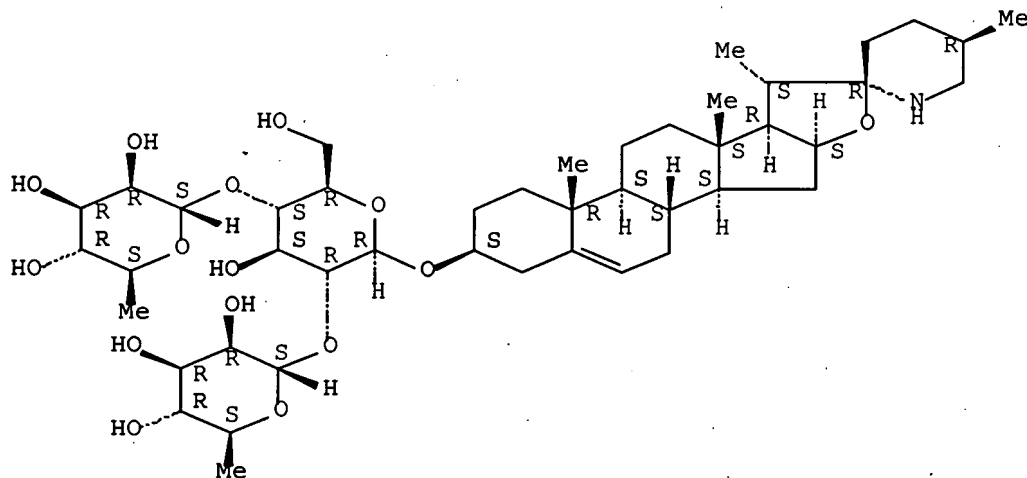
ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

10/563,743

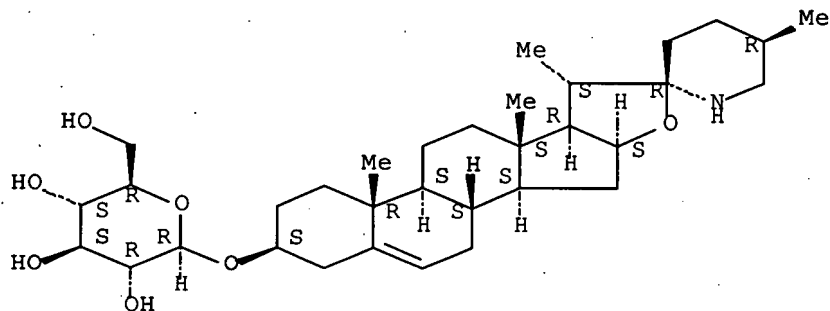
AB The sugar moiety of solamargine, isolated from *S. marginatum*, was shown to be β -chacotriose by the Kuhn methylation procedure.
IT 20311-51-7P
RL: PREP (Preparation)
(from *Solanum marginatum*, mol. structure of)
RN 20311-51-7 HCAPLUS
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



IT 58828-68-5P
RL: PREP (Preparation)
(from *Solanum marginatum*)
RN 58828-68-5 HCAPLUS
CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
2(or 4)-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)
CM 1
CRN 14197-65-0
CMF C33 H53 N O7

Absolute stereochemistry. Rotation (-).

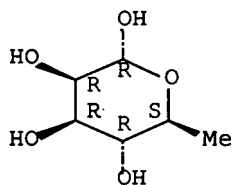


CM 2

CRN 6014-42-2

CMF C6 H12 O5

Absolute stereochemistry.

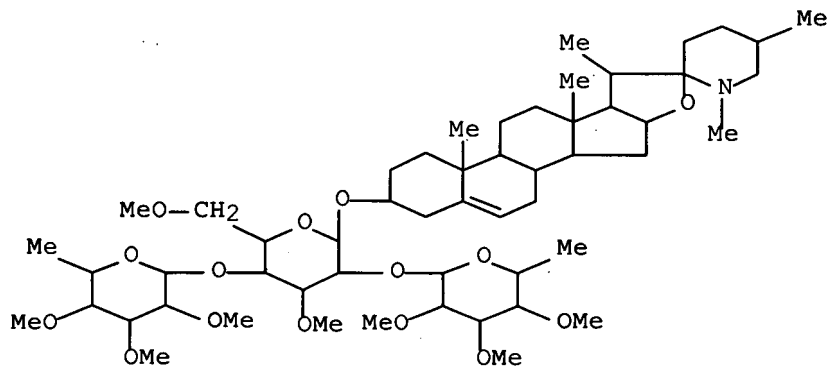


IT 58808-86-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 58808-86-9 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-28-methylspirosol-
5-en-3-yl O-6-deoxy-2,3,4-tri-O-methyl- α -L-mannopyranosyl-
(1 \rightarrow 2)-O-[6-deoxy-2,3,4-tri-O-methyl- α -L-mannopyranosyl-
(1 \rightarrow 4)]-3,6-di-O-methyl-, hydriodide (9CI) (CA INDEX NAME)



● HI

L124 ANSWER 35 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:441300 HCAPLUS Full-text

DOCUMENT NUMBER: 81:41300

TITLE: Plant sources of raw material for production of
solanine

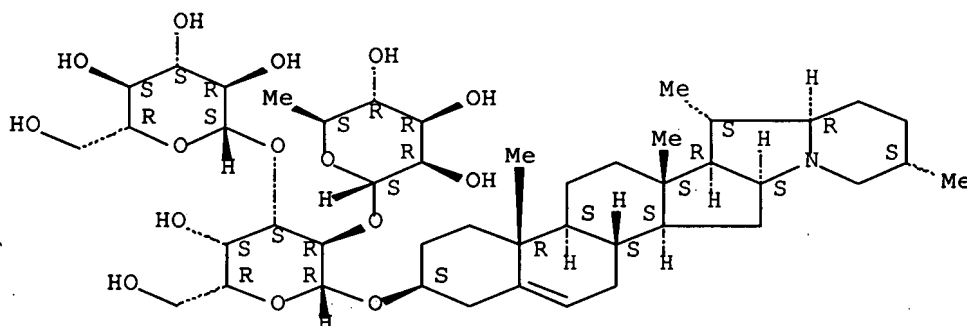
AUTHOR(S): Gerasimenko, I. I.

CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Lek. Rast., Bittsa,
USSRSOURCE: Rastitel'nye Resursy (1974), 10(1),
42-53

CODEN: RRESA8; ISSN: 0033-9946

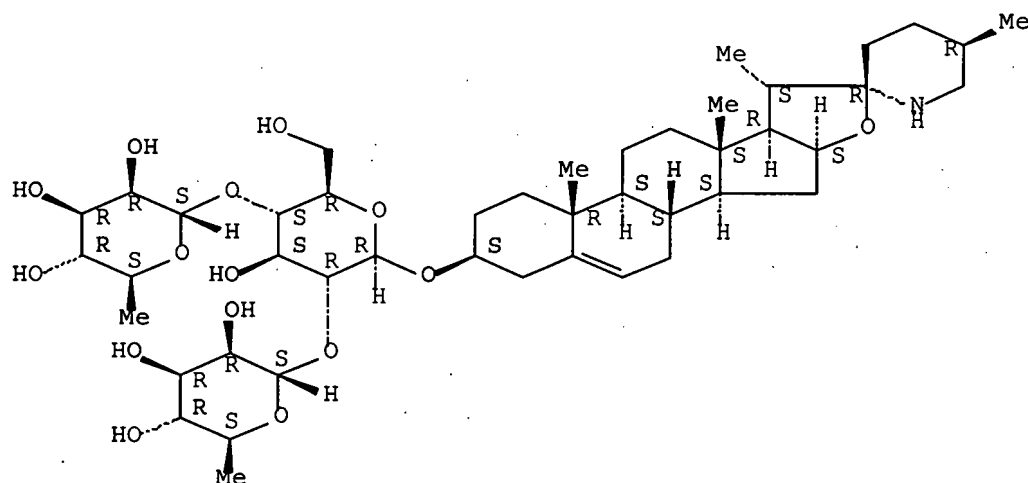
DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Russian
 ED Entered STN: 12 May 1984
 AB A review with 71 refs.
 IT 20562-02-1P
 RL: PREP (Preparation)
 (production of, plant sources for)
 RN 20562-02-1 HCAPLUS
 CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
 glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 36 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1973:72432 HCAPLUS Full-text
 DOCUMENT NUMBER: 78:72432
 TITLE: Steroidal constituents of Solanum xanthocarpum
 AUTHOR(S): Kusano, G.; Beisler, J.; Sato, Y.
 CORPORATE SOURCE: Natl. Inst. Arthritis Metab. Dis., Natl. Inst.
 Health, Bethesda, MD, USA
 SOURCE: Phytochemistry (Elsevier) (1973),
 12(2), 397-401
 CODEN: PYTCAS; ISSN: 0031-9422
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 May 1984
 AB From the extract of the fruits of Solanum xanthocarpum, cycloartanol,
 cycloartenol, sitosterol, stigmasterol, campesterol, cholesterol, sitosteryl
 glucoside, stigmasteryl glucoside, solamargine, and β -solamargine were
 identified and an isolated steroid was identical with 4 α -methyl-(24R)-
 ethylcholest-7-en-3 β -ol synthesized from carpesterol.
 IT 20311-51-7P 32449-98-2P
 RL: BIOL (Biological study); PREP (Preparation)
 (from Solanum xanthocarpum)
 RN 20311-51-7 HCAPLUS
 CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.

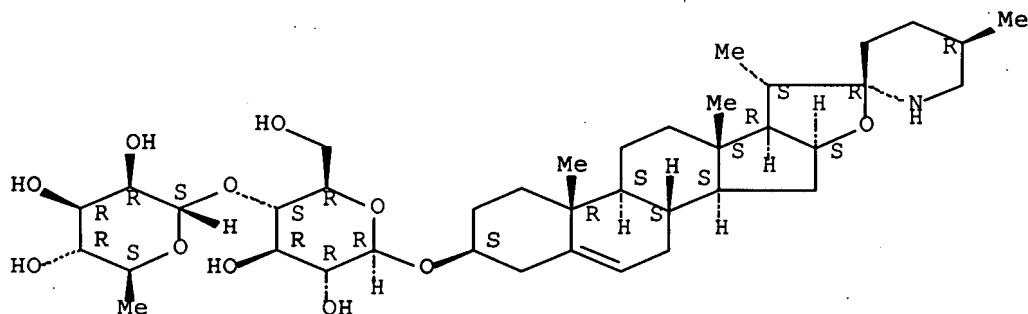


RN 32449-98-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl

4-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 37 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:58670 HCAPLUS Full-text

DOCUMENT NUMBER: 78:58670

TITLE: Conversion of steroid saponins to the corresponding pregnane glycosides

AUTHOR(S): Miyahara, Kazumoto; Ida, Yoshiteru; Kawasaki, Toshio

CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1972), 20(11), 2506-10

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Steroidal saponins, I and II were converted to the corresponding pregnane glycosides III by Marker degradation; similarly IV and V were converted to VI.

IT 17406-45-0

RL: PRP (Properties)

10/563,743

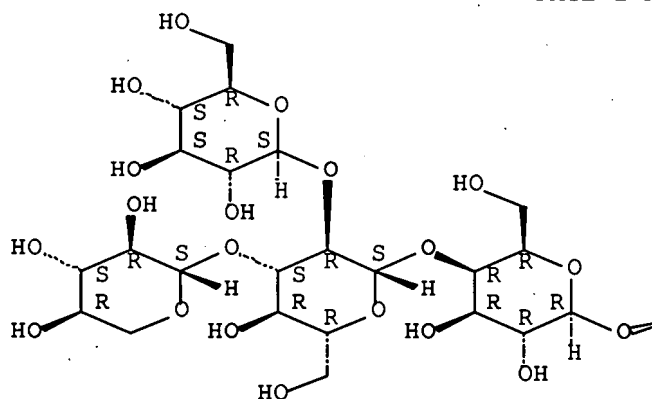
(Marker degradation of; pregnane glycosides by)

RN 17406-45-0 HCAPLUS

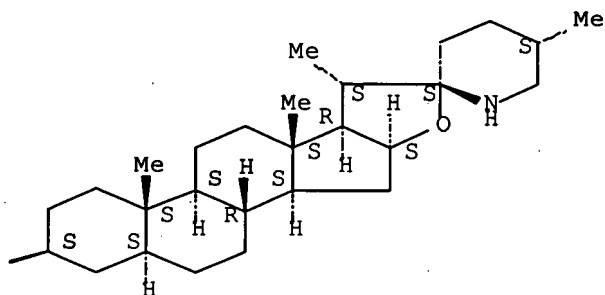
CN β -D-Galactopyranoside, (3 β ,5 α ,22 β ,25S) -
spirosolan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[β -D-
xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)-
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

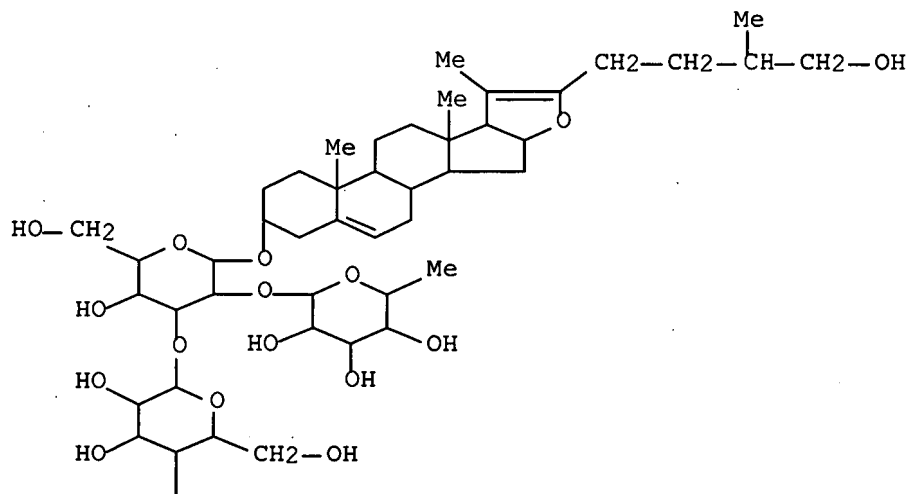


IT 39941-66-7P 39941-68-9P 39980-73-9P
40489-16-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 39941-66-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-26-hydroxyfurosta-5,20(22)-
dien-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -
D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

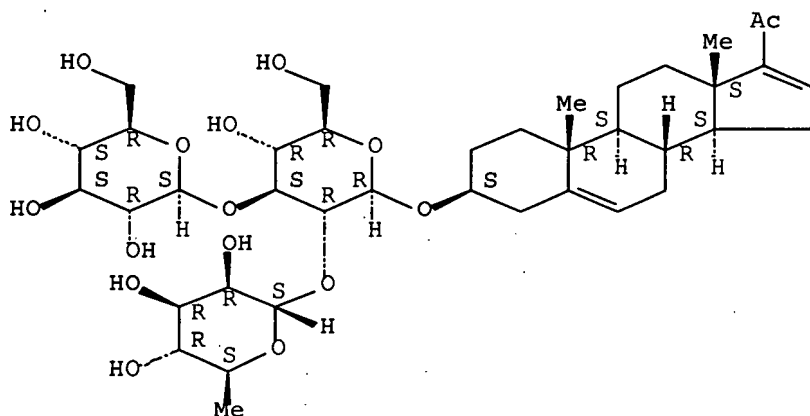


PAGE 2-A

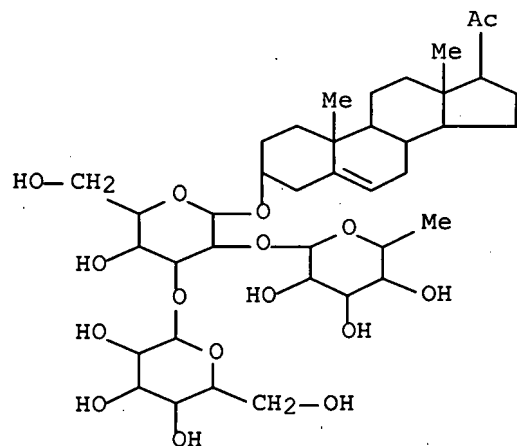
$$\text{OH}$$

CN Pregna-5,16-dien-20-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-glucopyranosyl)oxy]-, (3 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

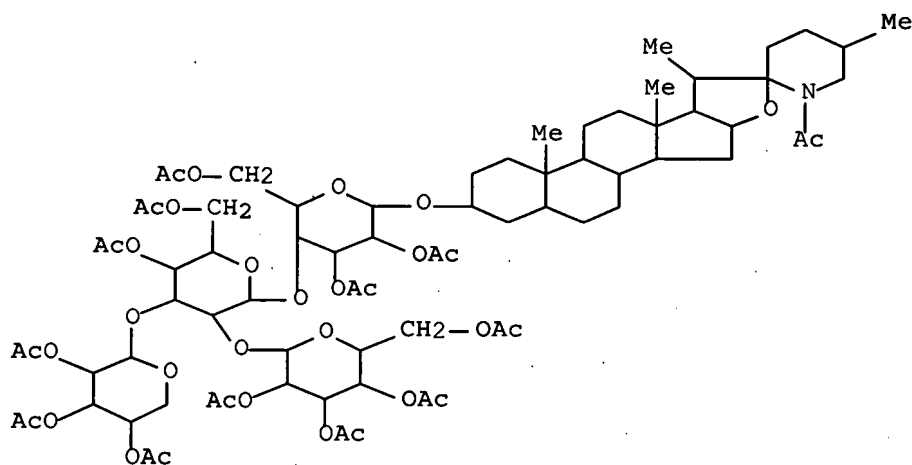


CN Pregn-5-en-20-one, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-glucopyranosyl)oxy]-, (3 β)- (9CI) (CA INDEX NAME)



RN 40489-16-5 HCAPLUS

CN Spirosolane, 28-acetyl-3-[(O-2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[2,3,4-tri-O-acetyl- β -D-xylopyranosyl-(1 \rightarrow 3)]-O-4,6-di-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 4)-2,3,6-tri-O-acetyl- β -D-galactopyranosyl)oxy]-, (3 β ,5 α ,22 β ,25S)- (9CI) (CA INDEX NAME)



L124 ANSWER 38 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:127369 HCAPLUS Full-text

DOCUMENT NUMBER: 76:127369

TITLE: Synthesis of 2-O- α -L-rhamnopyraosyl-D-galactose, a reported partial hydrolysis product of α -solanine, and some taste-eliciting flavonoid 2-O- α -L-rhamnopyranosyl- β -D-galactopyranosides

AUTHOR(S): Van Niekerk, D. M.; Koeppen, B. H.

CORPORATE SOURCE: Dep. Food Sci., Univ. Stellenbosch,
Stellenbosch, S. Afr.

SOURCE: Experientia (1972), 28(2), 123-4
CODEN: EXPEAM; ISSN: 0014-4754

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 76:127369

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

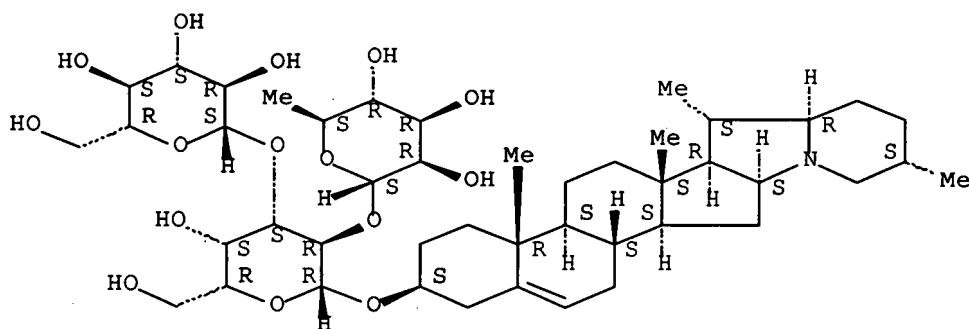
AB Deacetylation of I (R = OAc, R1 = H) (II) with 0.4% NaOMe gave 66% 2-O- α -L-rhamnopyranosyl-D-galactose. II was prepared in 82% yield by condensation of 2,3,4-tri-O-acetyl- α -L-rhamnopyranosyl bromide with 1,3,4,6-tetra-O-acetyl- α -D-galactopyranose in MeCN containing Hg(CN)₂ and HgBr₂. Conversion of II to the bromide (I, R = Br, R1 = H) (III) and treatment of III with Hg(OAc)₂-HOAc gave I (R = H, R1 = OAc). III was used to prepare the naringenin derivative, hexadeacetylated I (R = H, R1 = Q) (IV), which was hydrogenated with ring cleavage to the dihydrochalcone I [R = H, R1 = 3,5,4-(HO)₂(p-HOC₆H₄CH₂CH₂CO)C₆H₂O] (V). IV was as bitter as naringin, an isomeric neohesperidoside, and V was as sweet as the corresponding naringin dihydrochalcone. The relation between taste and configuration of the C-3 and C-4 OH groups was discussed.

IT 20562-02-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrolysis products of, preparation of)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 39 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1967:482309 HCAPLUS Full-text

DOCUMENT NUMBER: 67:82309

TITLE: Solanum alkaloids. LXXII. γ l- and δ -Solamarines, two new tomatidenol glycosides from Solanum dulcamara
Roensch, Hasso; Schreiber, Klaus
Deut. Akad. Wiss., Berlin, Germany
Phytochemistry (Elsevier) (1966), 5(6), 1227-33
CODEN: PYTCAS; ISSN: 0031-9422

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE: Journal

LANGUAGE: German

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB cf. CA 66: 11114c; 67: 22079t. In addition to α -, β -, and γ -solamarine, two new glycosides of tomatid-5-en-3 β -ol (I), were isolated from a chemovariety of *S. dulcamara*, i.e., α -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyltomatidenol (γ 1-solamarine) (II), m. 268-71° (decomposition), $[\alpha]_{22D} -60.3^\circ$ (c 1), and β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyltomatidenol (δ -solamarine) (III), m. 265-9° (decomposition), $[\alpha]_{21D} -39.6^\circ$ (c 0.92). II was hydrolyzed in 0.1N HCl-EtOH 3 hrs. at 80°, to give glucose and rhamnose and hydrolysis of III gave galactose and glucose.

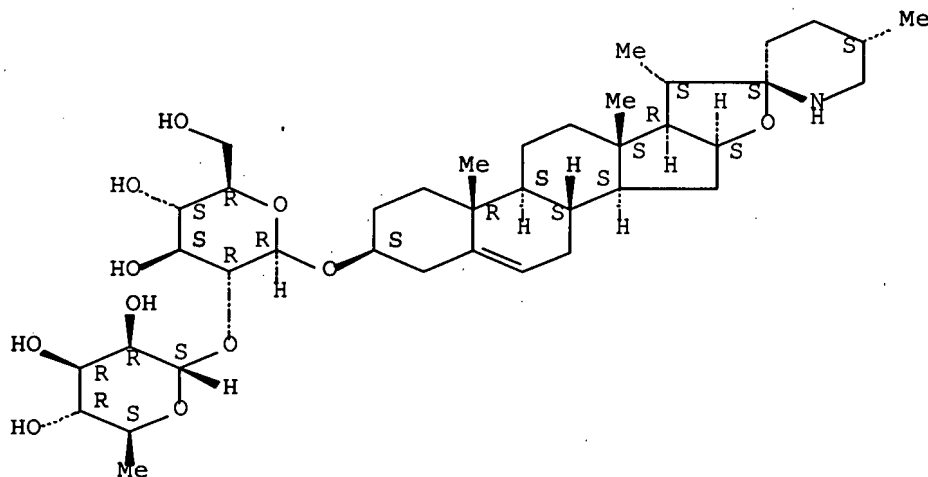
IT 15299-06-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(as structure for γ 1-solamarine)

RN 15299-06-6 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
2-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



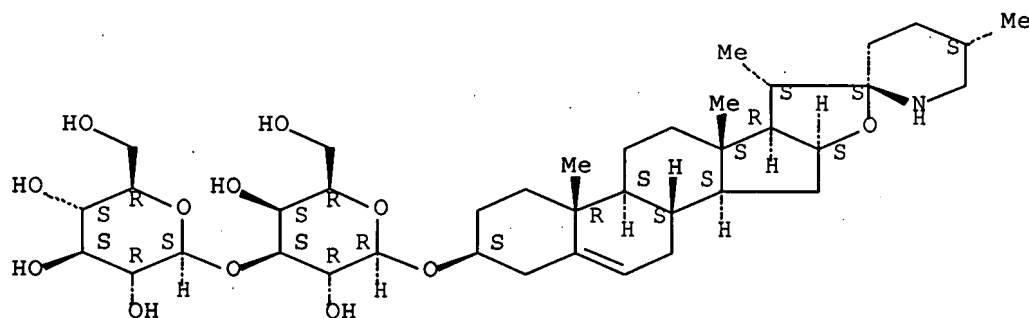
IT 15299-07-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(as structure for δ -solamarine)

RN 15299-07-7 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
3-O- β -D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 3671-38-3P 11034-34-7P 20318-30-3P

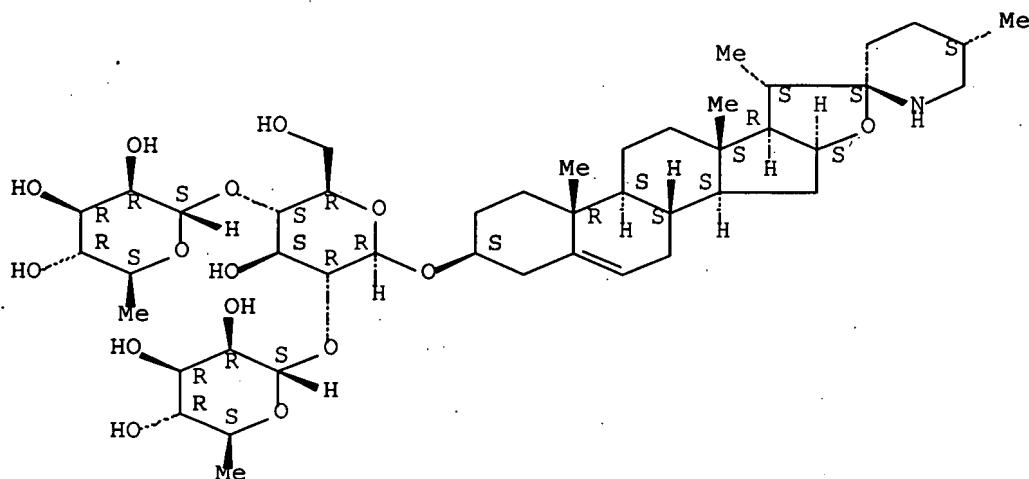
RL: PREP (Preparation)

(from Solanum dulcamara)

RN 3671-38-3 HCAPLUS

CN β-D-Glucopyranoside, (3β,22β,25S)-spirosol-5-en-3-yl
O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[6-deoxy-α-L-mannopyranosyl-(1→4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

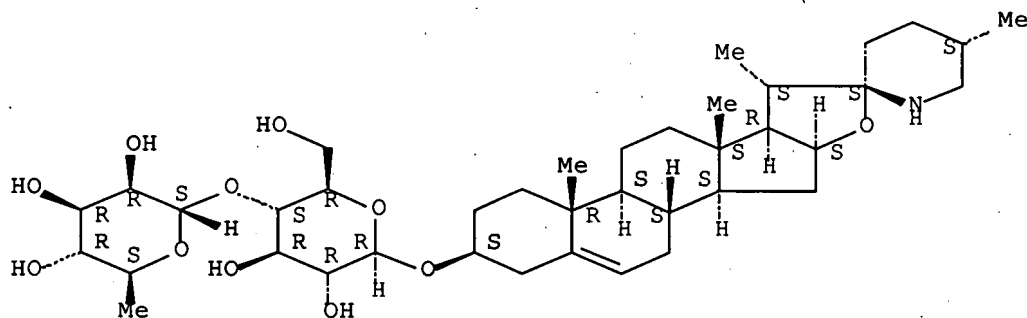


RN 11034-34-7 HCAPLUS

CN β-D-Glucopyranoside, (3β,22β,25S)-spirosol-5-en-3-yl
4-O-(6-deoxy-α-L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

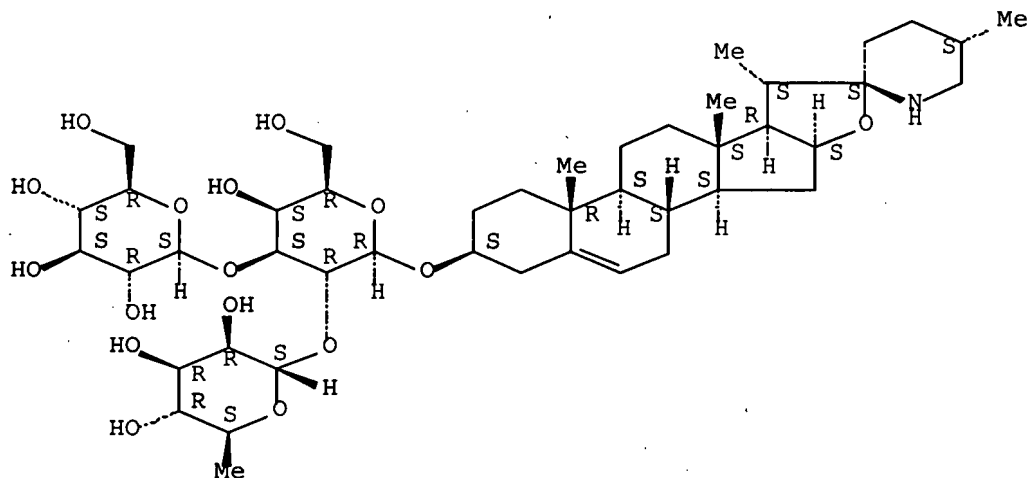
10/563,743



RN 20318-30-3 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



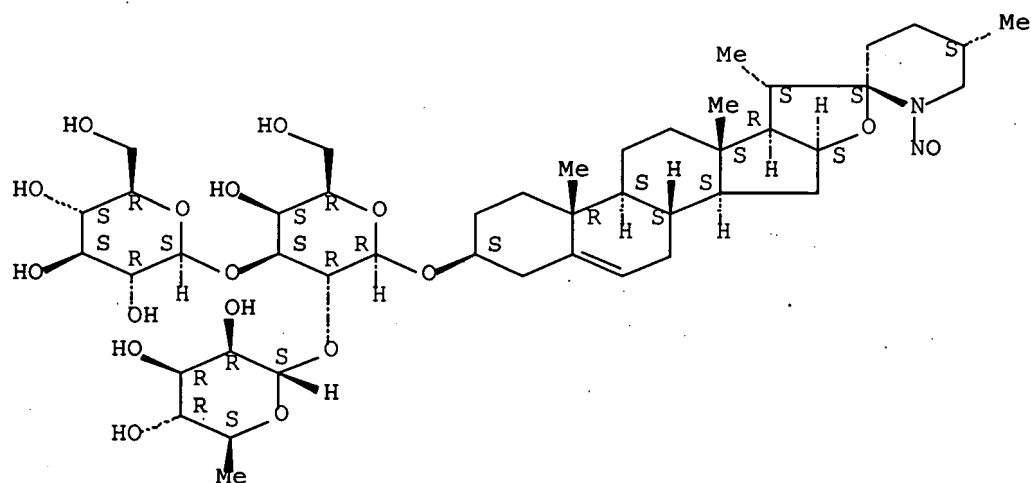
IT 11034-35-8P 11034-36-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 11034-35-8 HCAPLUS

CN α -Solamarine, N-nitroso- (8CI) (CA INDEX NAME)

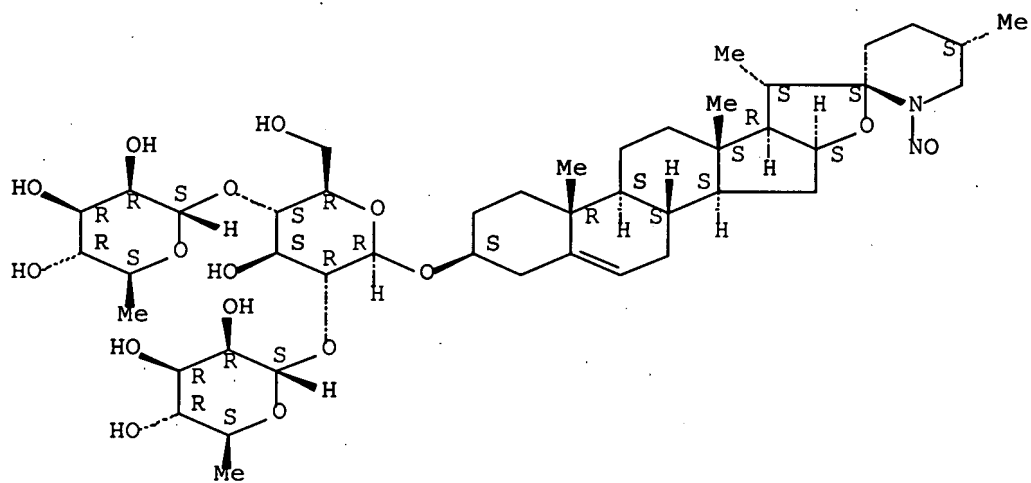
Absolute stereochemistry.



RN 11034-36-9 HCAPLUS

CN β -Solamarine, N-nitroso- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



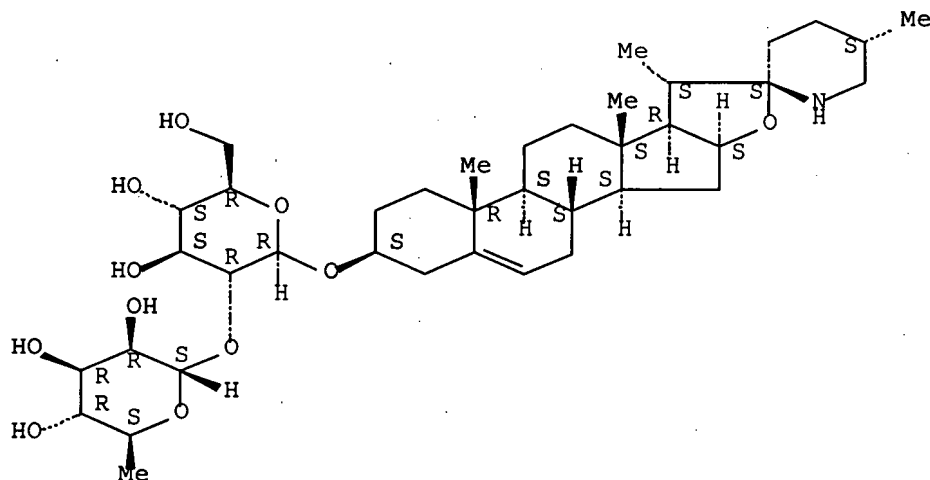
IT 15299-06-6 15299-07-7

RL: PRP (Properties)
(structure of)

RN 15299-06-6 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
2-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

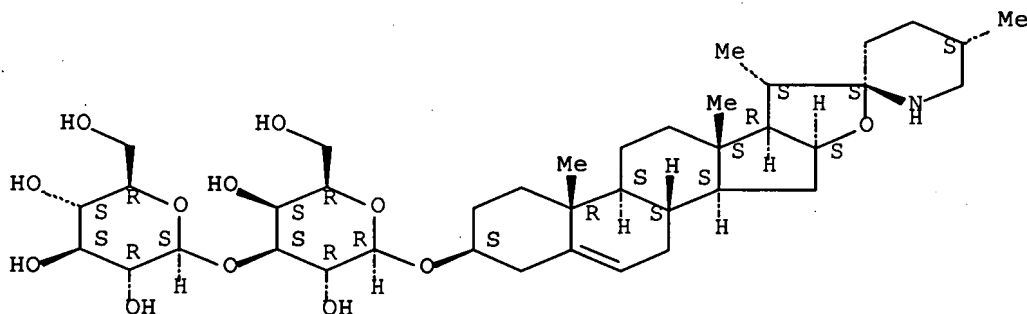
Absolute stereochemistry.



RN 15299-07-7 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl 3-O- β -D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 40 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:413019 HCAPLUS Full-text

DOCUMENT NUMBER: 61:13019

ORIGINAL REFERENCE NO.: 61:2194h,2195a-b

TITLE: Biosynthesis of the glycoside alkaloids of potato

AUTHOR(S): Guseva, A. R.

CORPORATE SOURCE: A.N. Bach Inst. Biochem., Moscow

SOURCE: Tagungsber. Deut. Akad. Landwirtschaftswiss. Berlin (1961), No. 27, 155-61; discussion 162

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB Biosynthesis of glycosidic alkaloids in the potato plant was studied with labeled material. Labeled acetate added as AcOH to the nutrient solution was incorporated in minute quantities in the α -solanine (I) and α -chaconine (II) isolated from the shoots. The activity in II was twice that of I. The activity in the glycosides reached a maximum 48 hrs. after feeding and then

gradually decreased. Acetate-14C was concentrated in the aglycon under normal illumination, but was equally distributed between the aglycon and the carbohydrate moiety in darkness. Meva-lonic-2-14C acid was incorporated in I and II in the same quantity as the acetate. The 2-fold incorporation of activity into II might arise from a biopathway wherein the sugar residue is attached to an incompletely formed aglycon which then transforms to I and II.

IT 20562-02-1P, α -Solanine 20562-03-2P,
 α -Chaconine

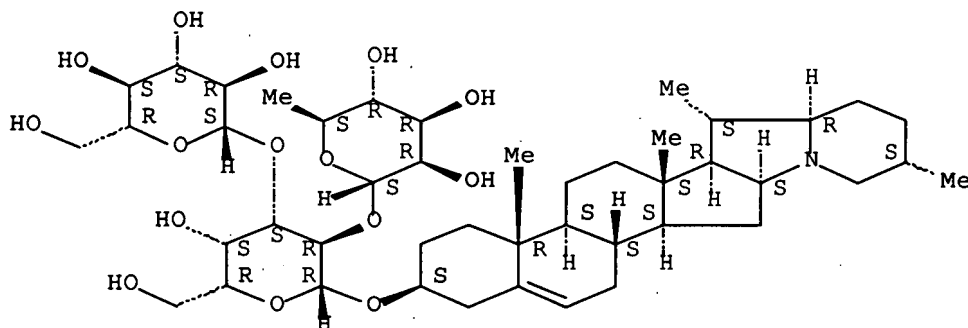
RL: PREP (Preparation)

(formation by potato, acetic and mevalonic acids in)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

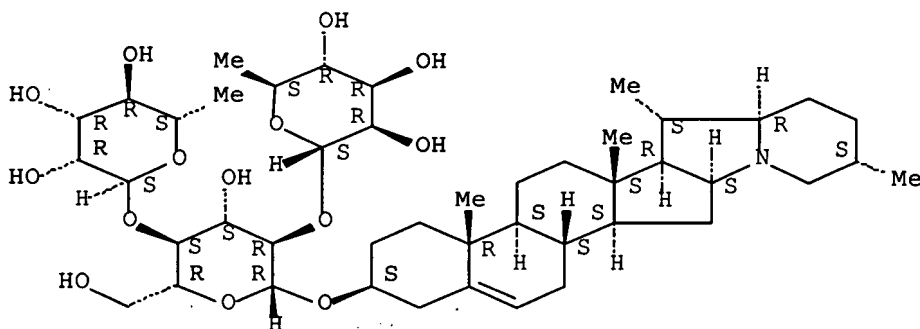
Absolute stereochemistry.



RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



10/563,743

TITLE: Recent investigations on Solanum alkaloids
 AUTHOR(S): Briggs, L. H.
 CORPORATE SOURCE: Univ. Auckland, N. Z.
 SOURCE: Tagungsber., Deut. Akad. Landwirtschaftswiss.
 Berlin (1961), No. 27, 37-40

DOCUMENT TYPE: Journal
 LANGUAGE: English

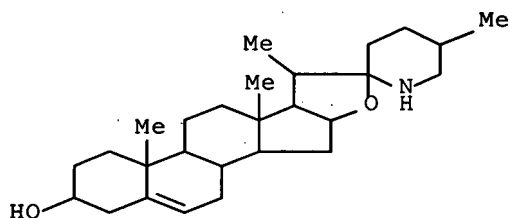
ED Entered STN: 22 Apr 2001

AB An aqueous filtrate from the fermented slurry of ripe fruit of *S. marginatum* was saturated with ammonia. The resulting needles apparently consisted of a disaccharide of solasodine with glucose and rhamnose. Reinvestigation of the alkaloids of *S. auriculatum* showed that solauricine was a mixture of solasonine and solamargine, solauricidine was probably a complex of solasodine and solasodine galactoside, solasodamine was solasonine monohydrate. The alkaloid content of other *Solanum* spp. was reported.

IT 1415-77-6, Solauricidine 1415-89-0, Solauricine
 19121-58-5, Solasonine 108033-95-0, Solasonine,
 hydrate
 (from *Solanum*)

RN 1415-77-6 HCAPLUS

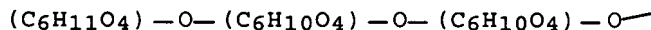
CN Solauricidine (8CI) (CA INDEX NAME)



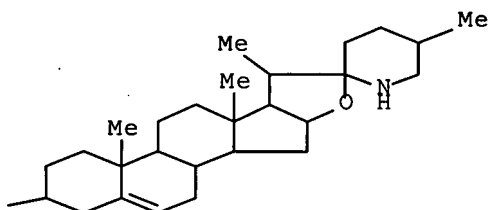
RN 1415-89-0 HCAPLUS

CN Solauricine (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

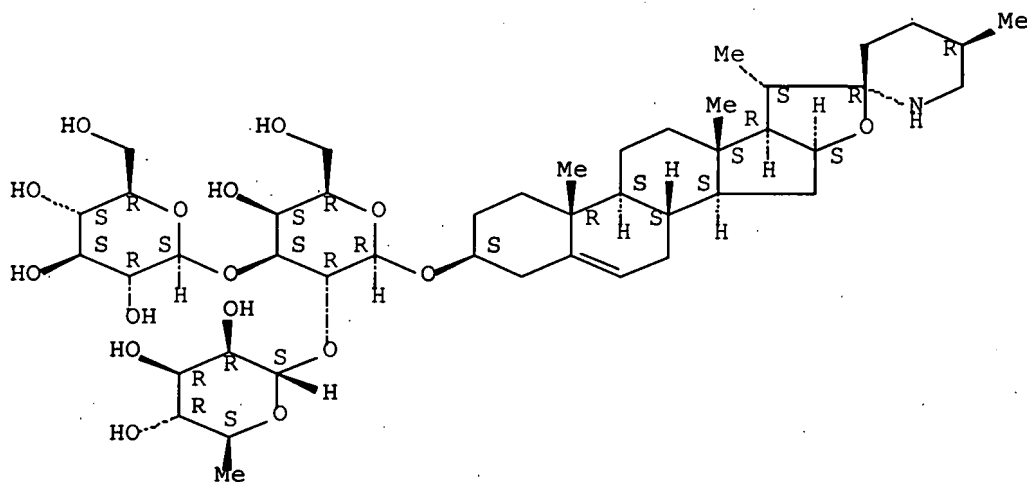


10/563,743

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- [β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

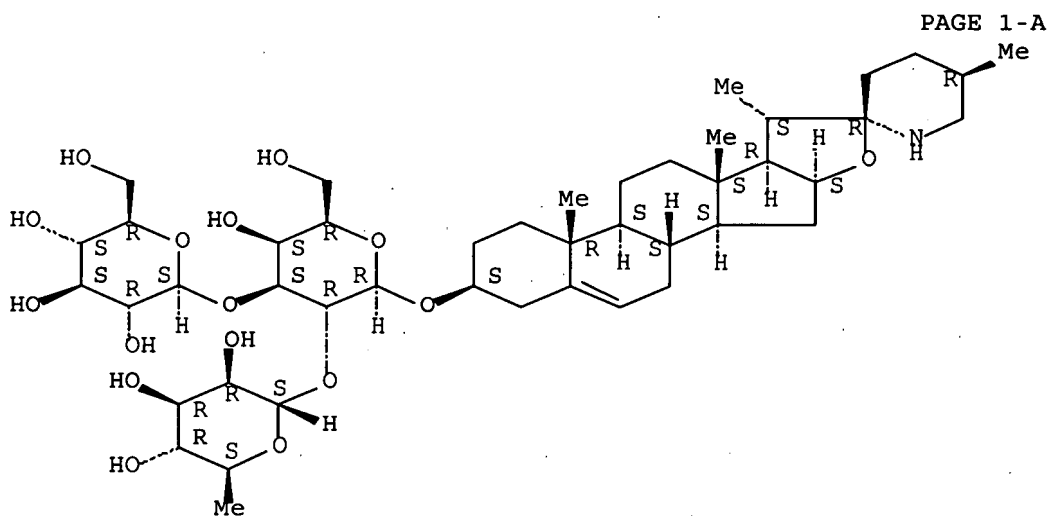
Absolute stereochemistry.



RN 108033-95-0 HCAPLUS

CN Solasonine, hydrate (7CI) (CA INDEX NAME)

Absolute stereochemistry.



● H2O

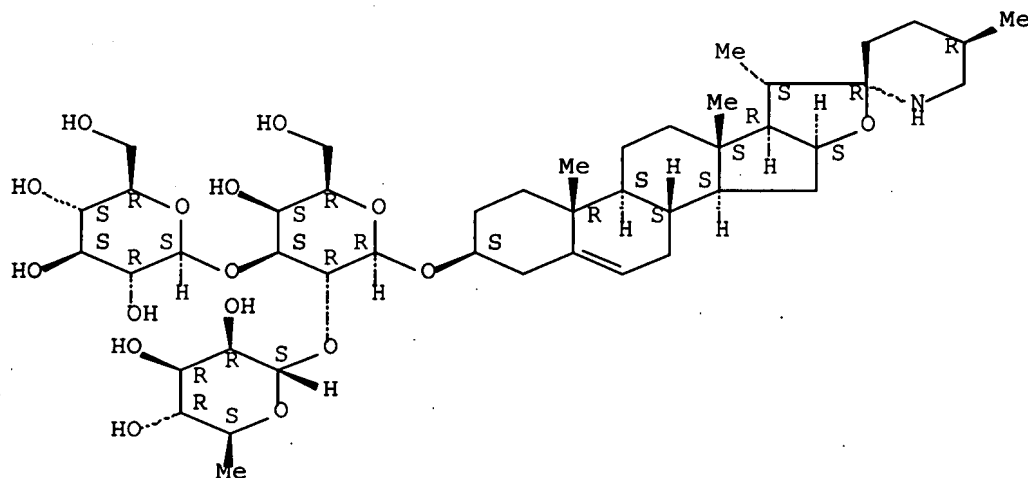
IT 7097-58-7P, Solasonine, picrolonate
 RL: PREP (Preparation)
 (preparation of)
 RN 7097-58-7 HCAPLUS
 CN Spirosol-5-en-3-ol, O- α -L-rhamnopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 6)- β -D-glucopyranoside,
 picrolonate, (3 β ,22R,25R)- (8CI) (CA INDEX NAME)

CM 1

CRN 19121-58-5

CMF C45 H73 N O16

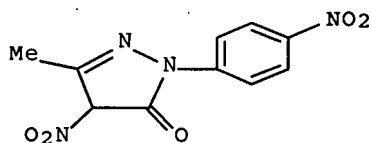
Absolute stereochemistry.



CM 2

CRN 550-74-3

CMF C10 H8 N4 O5



ACCESSION NUMBER: 1964:91110 HCAPLUS Full-text
 DOCUMENT NUMBER: 60:91110
 ORIGINAL REFERENCE NO.: 60:15943d-f
 TITLE: New [steroidal] alkaloids occurring in the leaves of *Solanum chacoense*
 AUTHOR(S): Kuhn, R.; Loew, I.
 CORPORATE SOURCE: Max-Planck-Inst., Heidelberg, Germany
 SOURCE: Tagungsber., Deut. Akad. Landwirtschaftswiss. Berlin (1961), No. 27, 7-14, discussion 14-15
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 ED Entered STN: 22 Apr 2001

AB Two new alkaloid glycosides, leptine 1 (I) and leptine 2 (II), isolated from leaves of *S. chacoense*, are responsible for the resistance of this species against Colorado potato beetle and its larvae. Both I and II contained an Ac group bound directly to the aglycon (leptinidine) (III), which was easily removable, to give to the physiol, inactive leptinines 1 and 2 (IV and V, resp.). I, $[\alpha]_D -85^\circ$ (C₅H₅N), and IV, $[\alpha]_{28D} -90^\circ$ (C₅H₅N), contained the same carbohydrate component as α -chaconine (glucose-rhamnose-rhamnose) and II and V, $[\alpha]_{24D} -62^\circ$ (C₅H₅N), as α -solanine (galactose-glucose-rhamnose), resp. III, m. 247-8°, $[\alpha]_D -24^\circ$ (CHCl₃), was isomeric with rubijervine and isorubijervine. Acetylation of both III and III monoacetyl derivative (VI), $[\alpha]_D -29^\circ$ (CHCl₃) gave III diacetyl derivative, m. 194-6°, $[\alpha]_D -36^\circ$ (CHCl₃). Paper

chromatographic relative rates of migration in 5:2:1 EtOAc-C₅H₅N-H₂O were (α -solanine = 1.0): I 2.1, II .apprx.1.3, III 0.9, IV 1.1, V 0.65, and VI .apprx.1.0. The infrared spectra of I, III, IV, and VI were given.

IT 107944-45-6

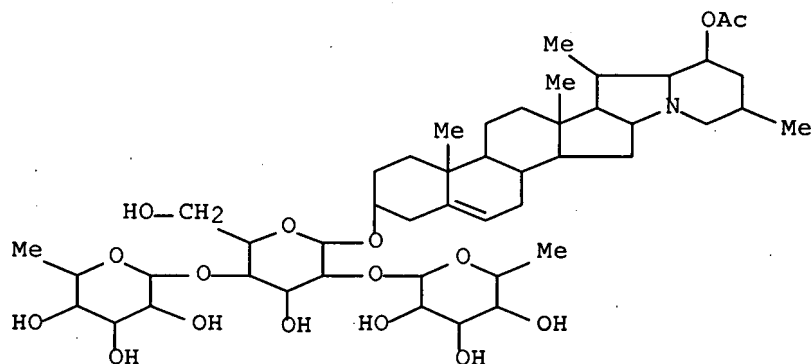
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 107944-45-6 HCAPLUS

IT 101030-83-5, Leptine I 101054-39-1, Leptine II (in *Solanum chacoense*)

RN 101030-83-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-(acetyloxy)solanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

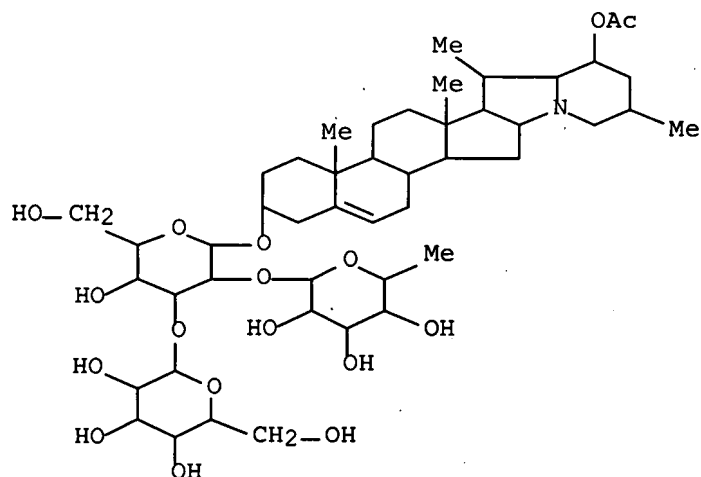


RN 101054-39-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,23 β)-23-(acetyloxy)solanid-

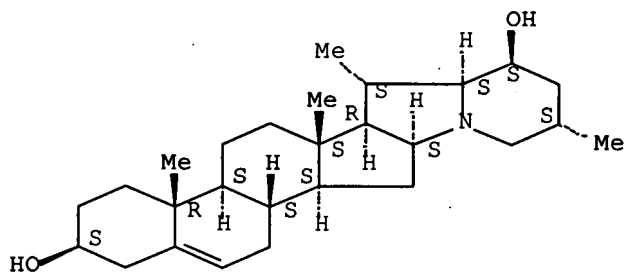
10/563,743

5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)



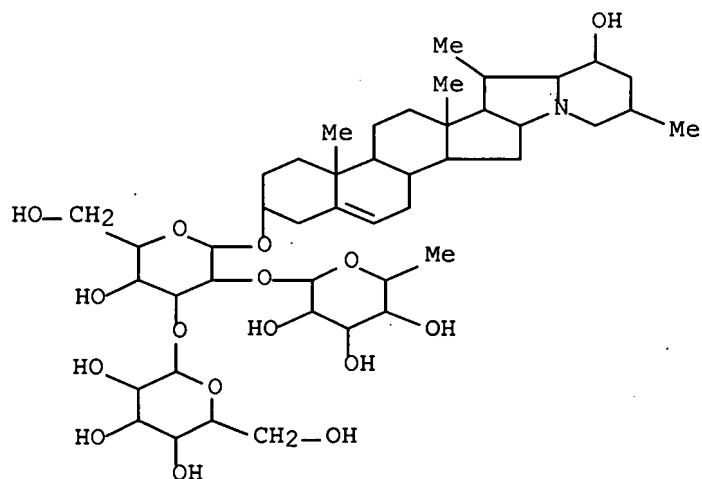
IT 24884-17-1P, Leptinidine 100994-57-8P, Leptinine
 II 101009-59-0P, Leptinine I
 RL: PREP (Preparation)
 (preparation of)
 RN 24884-17-1 HCAPLUS
 CN Solanid-5-ene-3,23-diol, (3 β ,23 β)- (CA INDEX NAME)

Absolute stereochemistry.



RN 100994-57-8 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

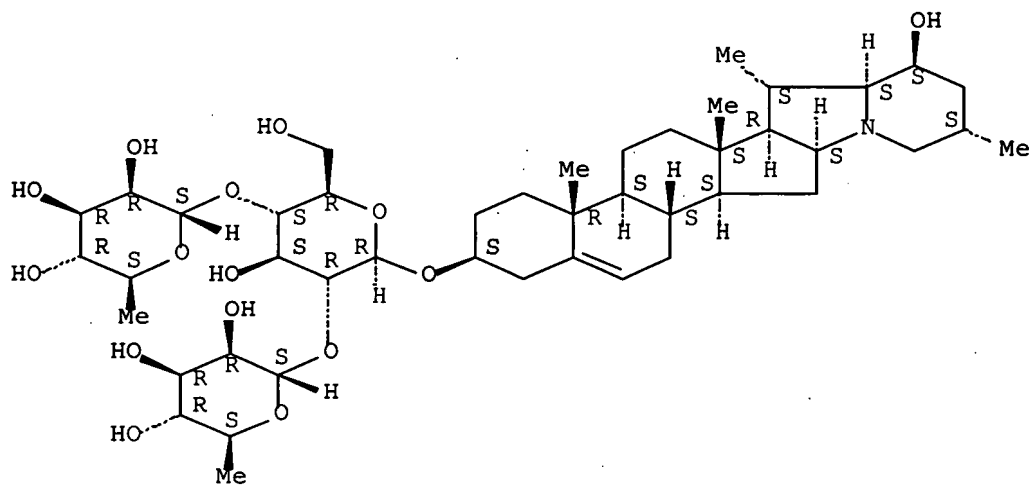
10/563,743



RN 101009-59-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 43 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:23614 HCAPLUS Full-text

DOCUMENT NUMBER: 60:23614

ORIGINAL REFERENCE NO.: 60:4212c-h

TITLE: Solanum alkaloids. XXXV. Preparation of N-nitrosospirosolanol glycosides and degradation of N-nitrosotomatine to 3 β -acetoxy-5 α -pregn-16-en-20-one

AUTHOR(S): Schreiber, K.; Ripperger, H.

CORPORATE SOURCE: Deut. Akad. Wiss., Berlin

SOURCE: Arch. Pharm. (1963), 296(10), 717-20

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

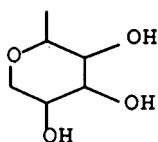
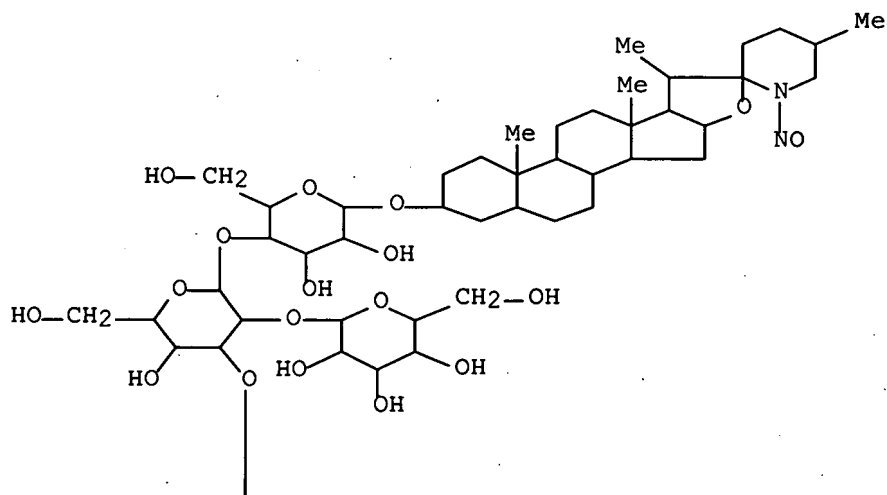
ED Entered STN: 22 Apr 2001

AB cf. CA 59, 14054b; preceding abstract The degradation of solanum spiroaminoketal alkaloids through their easily isolated N-nitroso derivs. gives a new route to intermediates for industrial hormone synthesis. To 2.65 g. solasonine (Ia) [R = L-rhamnosyl-D-glucosyl-D-galactosyl (Y), R' = H] (I) in 80cc. EtOH and 15 cc. AcOH was added 0.27 g. NaNO₂ in a small amount of H₂O. The solution was diluted with 100 cc. H₂O, allowed to stand 15 hrs., and extracted with CHCl₃-EtOH (2:1) to give 1.25 g. N-nitrososolasonine (Ia) (R = Y, R' = NO) (II), m. 251° (decomposition) (MeOH), [α]_{24D} -34.6° (c 0.97, pyridine). Similarly prepared were 1.2 g. N-nitroso-β-solamargine (Ia) (R = L-rhamnosyl-D-glucosyl, R' = NO) (III), m. 195° (decomposition) (50% aqueous MeOH), [α]_{23D} -47.7° (c 0.74, pyridine), from 2.0 g. solamargine (Ia) (R = L-rhamnosyl-D-glucosyl, R' = H) (IV), and 1.5 g. N-nitrosotomatine (Va) (R = lycotetraosyl, R' = NO) (V), m. 278° (decomposition) (MeOH), [α]_{24D} -74.4° (c 0.92, pyridine), from 2 g. tomatine (Va) (R = lycotetraosyl, R' = H) (VI). V (15 g.) was acetylated with 45 cc. Ac₂O in 150 cc. pyridine (15 hrs. at room temperature) to give N-nitrosododecaacetyltoomatine (Va) (R = dodecaacetyllycotetraosyl, R' = NO) (VII), m. 145-8° (MeOH-H₂O). VII (2.5 g.) was deacetylated by boiling with 50 cc. AcOH containing 10% NaOAc. After cooling, 375 mg. CrO₃ in 7.5 cc. 90% AcOH was added and the mixture kept 1.5 hrs. at room temperature, then refluxed 3 hrs. after addition of 1.25 cc. MeOH, and finally concentrated to dryness in vacuo. The residue was extracted with CHCl₃ to give crude 5α-pregn-16-en-3β-ol-20-one dodecaacetyl glycoside. This was dissolved in 125 cc. dioxane, 17.5 cc. concentrated HCl, and 100 cc. H₂O; the solution was boiled 3 hrs., concentrated to half its volume, diluted with H₂O, and extracted with ether. Solvent was evaporated, the residue was treated with 1.25 cc. Ac₂O in 7.5 cc. pyridine (15 hrs. at room temperature), and the product was chromatographed on Al₂O₃. The residue from the C₆H₆ eluate gave, on crystallization from MeOH, 30 mg. 3β-acetoxy-5α-pregn-16-en-20-one (VIII), m. 160-2°, [α]_{26D} -40.7° (c 0.81, CHCl₃); the mixed m.p. with an authentic sample, m. 161-4°, [α]_{26D} -41.5° (CHCl₃), was not depressed and infrared spectra were identical. Δ[M]D (pyridine) on N-nitrosation: I, 493°; II, 434°; III, -482°.

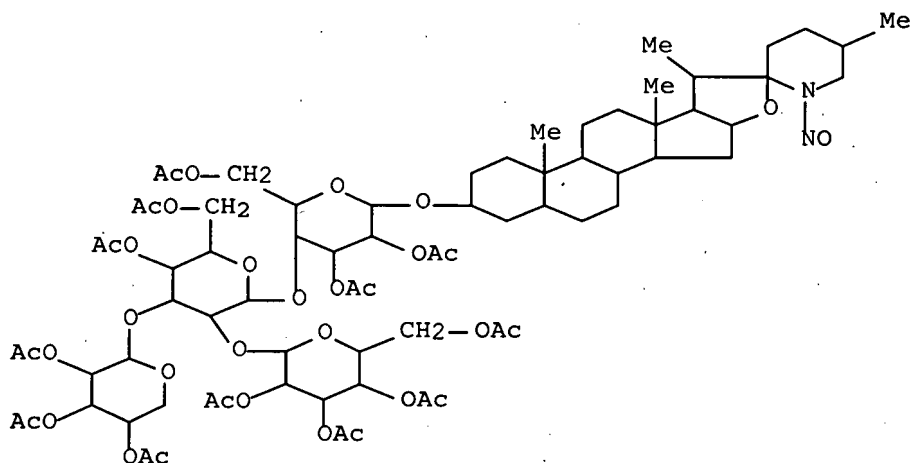
IT 108041-07-2P, Tomatine, N-nitroso-
 RL: PREP (Preparation)
 (preparation and degradation of)

RN 108041-07-2 HCAPLUS

CN Tomatine, N-nitroso- (7CI) (CA INDEX NAME)

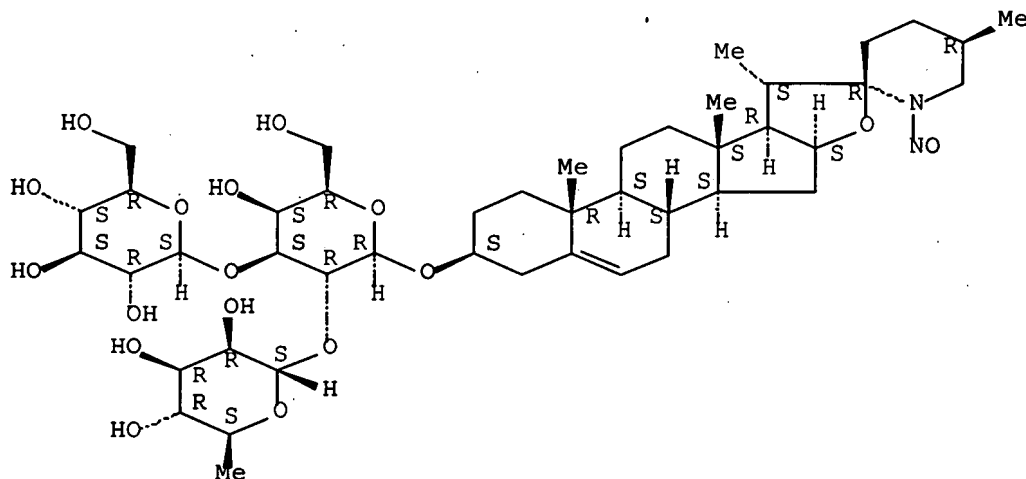


IT 90801-16-4P, Tomatine, N-nitroso-, dodecaacetate
 108033-94-9P, Solasonine, N-nitroso-
 RL: PREP (Preparation)
 (preparation of)
 RN 90801-16-4 HCAPLUS
 CN Tomatine, N-nitroso-, dodecaacetate (7CI) (CA INDEX NAME)



RN 108033-94-9 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-28-nitrosospirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- $[\beta$ -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 44 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1963:449978 HCAPLUS Full-text
 DOCUMENT NUMBER: 59:49978
 ORIGINAL REFERENCE NO.: 59:9093a-d
 TITLE: Biosynthesis of steroid alkaloidal glycosides of Solanum
 AUTHOR(S): Guseva, A. R.; Paseshnichenko, V. A.
 CORPORATE SOURCE: Bakh Inst. Biochem., Moscow
 SOURCE: Proc. Intern. Congr. Biochem., 5th, Moscow (1963), 1961(7), 287-93
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

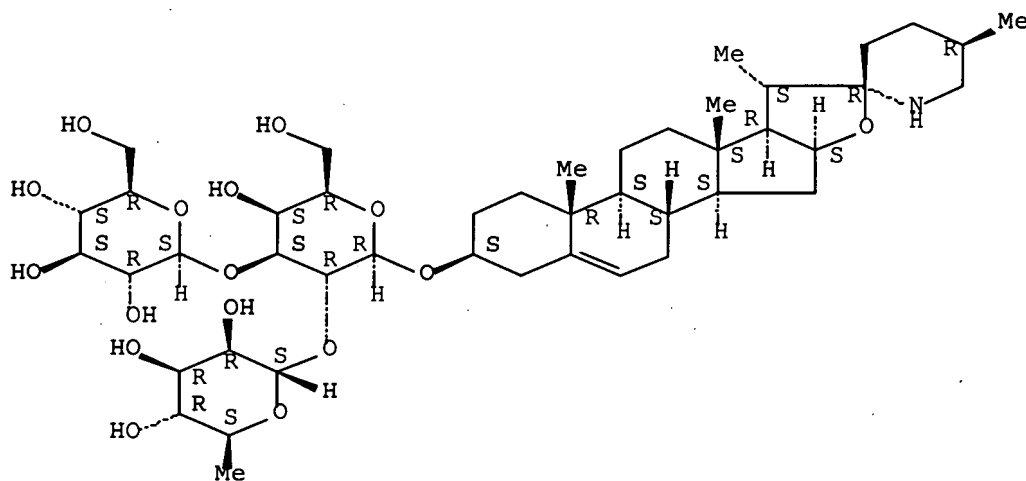
ED Entered STN: 22 Apr 2001

AB The biosynthesis of solanine, chaconine, solasonine, and solmargine in *S. tuberosum* and *S. aviculare*, resp., was studied using C14-labeled acetate and mevalonic acid derivs. Expts. with photosynthetic fixation of C14O2 and subsequent study of the Biosynthesis of the glycosides from the photosynthesis products were also carried out. The tagged materials used (those specifically mentioned: KOAc, N,N'-dibenzylethylenediammonium dimevalonate, K mevalonate, the lactone of mevalonic acid) were introduced by allowing the plants to take up the corresponding solns. The experiment with seedlings of *S. tuberosum* using labeled acetate shows that chaconine takes up the label more readily than solanine. In the experiment with the green leaves of *S. aviculare*, incorporation of acetate-2-C14 into solasonine plus solmargine is 0.180% as compared to 0.944% with DL-mevalonic acid-2-C14. Taking into account the facts that DL-mevalonic acid is used, and only one of the stereoisomers is utilized in the biosynthesis, the efficiency of the mevalonic acid is double

that of the acetate. Similar results are obtained in expts. with the seedlings of *S. tuberosum*. Approx. twice as much mevalonic acid-2-C14 as acetate is incorporated into the glycoside alkaloids. In the photosynthetic expts. 15 mins. of photosynthesis in C1402 was followed by various periods of illumination or darkness. The glycoside alkaloids are formed in both cases. Radioactivity was determined for both the sugar and aglycon components; the radioactivity of the aglycon as compared to the sugar rose to a much higher degree with longer exposure time.

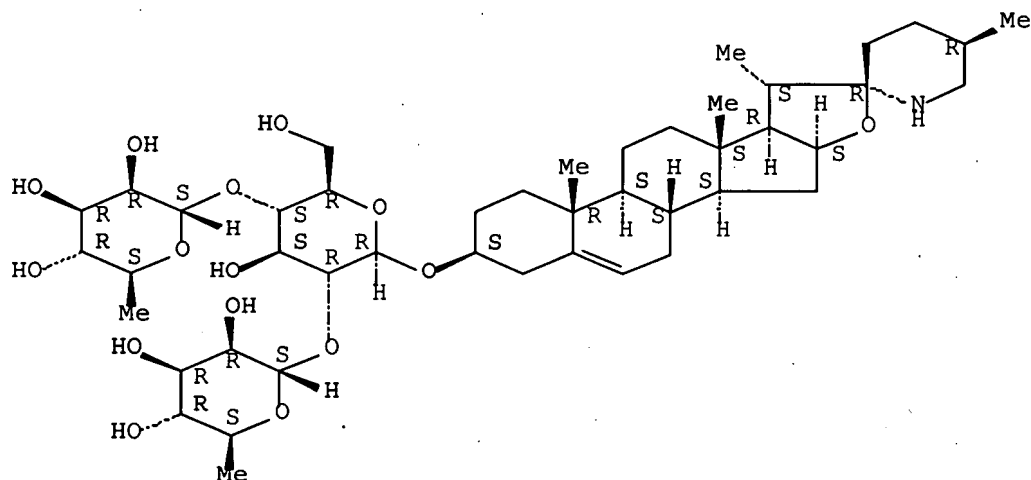
IT 19121-58-5P, Solasonine 20311-51-7P,
 α -Solamargine 20562-03-2P, α -Chaconine
 RL: PREP (Preparation)
 (formation in *Solanum aviculare* and *S. tuberosum*)
 RN 19121-58-5 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



RN 20311-51-7 HCAPLUS
 CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.

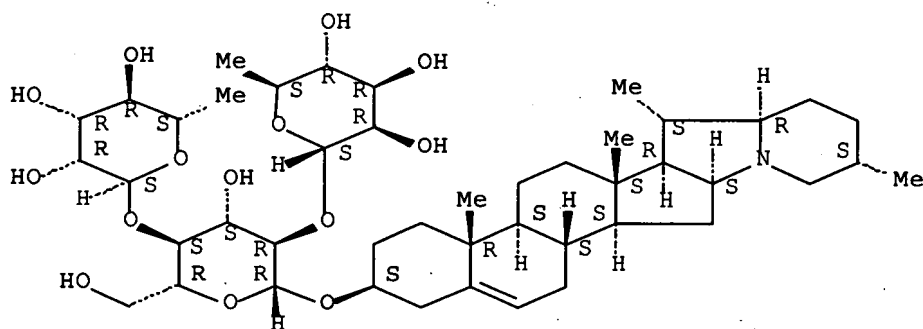


RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl

O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 45 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1963:409201 HCAPLUS Full-text

DOCUMENT NUMBER: 59:9201

ORIGINAL REFERENCE NO.: 59:1709g-h,1710a-d

TITLE: Alkaloidal glycosides from Solanum dulcamara.
II. Three new steroidal alkaloidal glycosides
and a reassessment of soladulcamaridine

AUTHOR(S): Boll, Per M.

CORPORATE SOURCE: Roy. Danish School Pharm., Copenhagen

SOURCE: Acta Chemica Scandinavica (1962), 16,
1819-30

CODEN: ACHSE7; ISSN: 0904-213X

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Apr 2001

GI For diagram(s), see printed CA Issue.

AB cf. CA 53, 18974i. Extraction of 14.7 kg. *Solanum dulcamara* tops with 5% AcOH and isolation by the procedure of Kuhn and Low (CA 49, 9232h) gave 37.7 g. EtOH-soluble alkaloidal glycosides, which, dissolved in BuOH saturated with H₂O and chromatographed on Al₂O₃, gave 3 glycosides designated as α -solamarine (I), m. 278-81° (MeOH-Me₂CO) (decomposition), [α]_{20D} -45.0° (c 0.65, pyridine); β -solamarine (II), m. 275-7° (Me-OH-Me₂CO) (decompn)., [α]_{20D} -85.6° (c 0.40, pyridine) [picrolanate m. 193-5° (80% EtOH) (decomposition)]; γ -solamarine (III), m. 243-8° (MeOH-Me₂CO) (decompn), [α]_{20D} -86.1° (c 0.36, pyridine). II (500 mg.) refluxed 2 hrs. with 20 ml. N HCl in MeOH gave 241 mg. aglycon hydrochloride. The aglycon, obtained by addition of concentrated NH₃, was shown by thinlayer chromatography on silica gel with 19:1 CHCl₃-MeOH and fractionation by chromatography on Al₂O₃ with C₆H₆ and CHCl₃ as eluents to consist of 5-tomatidenol (IV), m. 238-40° (Me₂CO), [α]_{20D} -37.9° (c 0.37, MeOH), 3,5-tomatidiene (V), m. 136-8° (MeOH), [α]_{20D} -88.6° (c 0.53, MeOH), λ 228 and 234 m μ (ϵ 21,100 and 22,500). Hydrolysis of I and III gave the same products. V was probably an artifact, as it was readily formed by heating 10 mg. IV at 100° with 1 ml. MeOH containing 20% dry HCl. IV in AcOH on hydrogenation over Pd-C absorbed 1 mole H to give tomatidine (VI), m. 209-10°, [α]_{20D} 5.6° (c 0.43, MeOH); O,N-diacetyl derivative m. 193-5° (aqueous EtOH). II in dioxane-AcOH-H₂O over Pd-C absorbed 1 mole H to give dihydro- β -solamarine (VII), m. 277-80° (MeOH-Me₂CO) (decomposition), sintering at 269°, [α]_{20D} -74.8° (c 1.03, pyridine). VII (207 mg.) refluxed 2 hrs. with 20 ml. MeOH and 2 ml. concentrated HCl gave 194 mg. VI. Acetylation of IV gave O,N-diacetyl-5-tomatidenol, m. 160-2°, [α]_{20D} -39.6° (c 0.36, MeOH). The acidic hydrolysates of the 3 glycosides (I, II, and III) were treated with Amberlite IR-4B and chromatographed in 8:1:2 BuOH-EtOH-H₂O and 3.6:1:1.15 AcOEt-pyridine-H₂O. I gave one mole each of D-glucose (VIII), D-galactose (IX), and L-rhamnose (X); II gave one VIII and two X; and III gave one VIII and one X. Hydrolysis of the crude glycoside mixture gave solasodine (XI), m. 198-9° (MeOH). XI was separated from IV by fractional crystallization of the latter from Me₂CO and MeOH after V had been removed by chromatography on Al₂O₃. The ammoniacal filtrate (10 l.) from the alkaloidal glycoside precipitation concentrated to 500 ml. and extracted 3 times with 250 ml. BuOH, H₂O added to the BuOH layer, the BuOH largely removed by distillation, the H₂O solution made 1.5N in HCl and refluxed 5 hrs., and the resulting precipitate extracted with C₆H₆ in a Soxhlet extractor and chromatographed on Al₂O₃ gave 57 g. yamogenin, m. 189-91°, [α]_{20D} -121.3° (c 0.35, CHCl₃); acetate m. 181-2°. The previously reported soladulcamaridine was found to be inhomogeneous, separable by thin layer chromatography into IV and traces of V and XI. The pK_b of IV was determined as 6.93, a value different than that previously given.

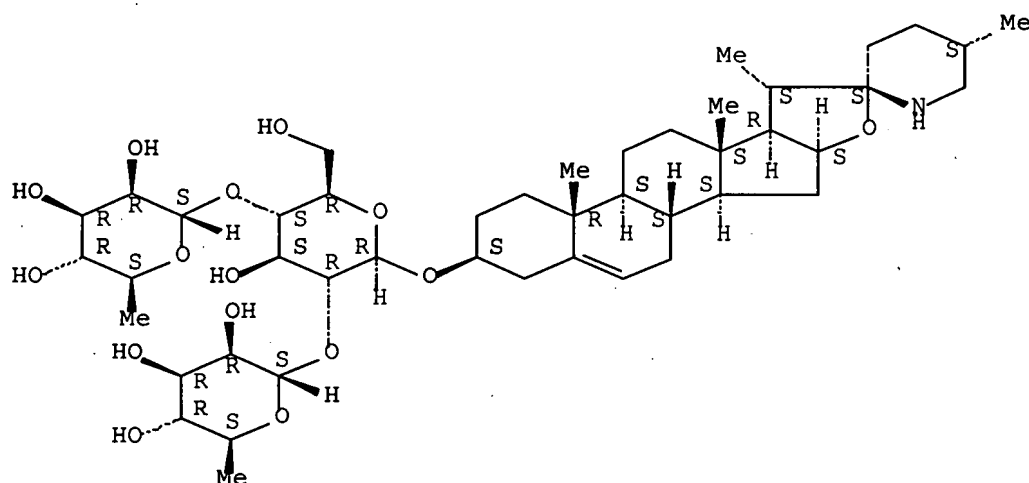
IT 3671-38-3 108019-37-0

(Derived from data in the 7th Collective Formula Index
(1962-1966))

RN 3671-38-3 HCAPLUS

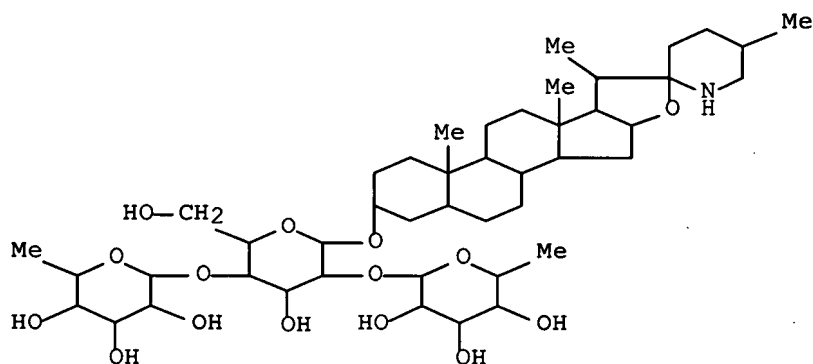
CN β -D-Glucopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 108019-37-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,5 α ,22 β ,25S)-spirosolan-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

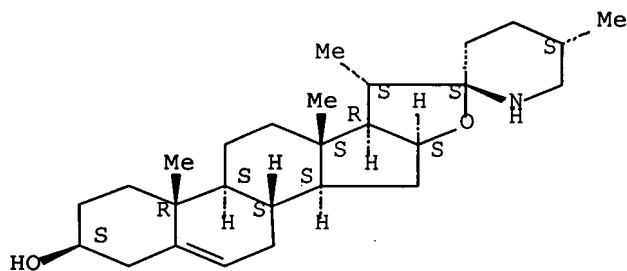


IT 546-40-7, Soladulcamaridine
(constituents of)

RN 546-40-7 HCAPLUS

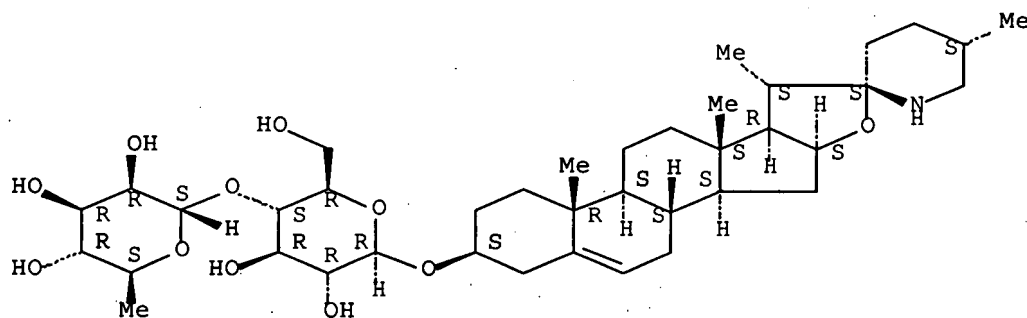
CN Spirosol-5-en-3-ol, (3 β ,22 β ,25S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



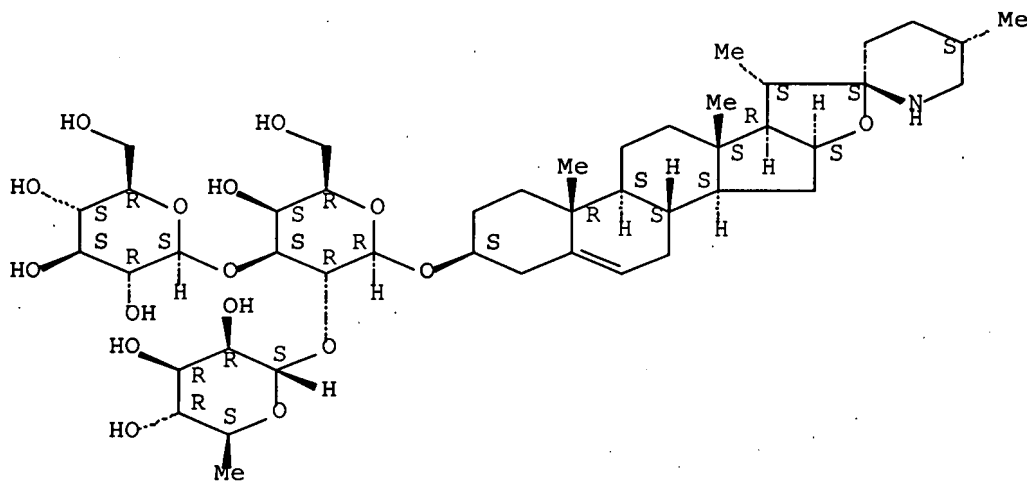
IT 11034-34-7, γ -Solamarine 20318-30-3,
 α -Solamarine
 (in *Solanum dulcamara*)
 RN 11034-34-7 HCAPLUS
 CN β -D-Glucopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
 4-O-(6-deoxy- α -L-mannopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 20318-30-3 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,22 β ,25S)-spirosol-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)

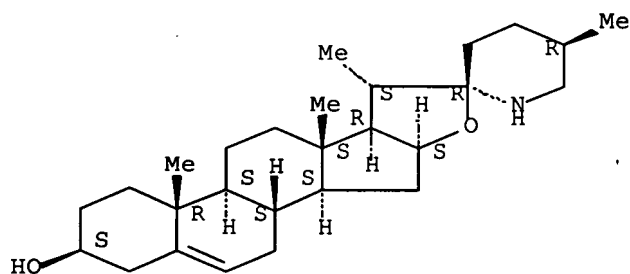
Absolute stereochemistry.



IT 126-17-0, Solasodine
 (of *Solanum dulcamara*)
 RN 126-17-0 HCAPLUS
 CN Spirosol-5-en-3-ol, (3 β ,22 α ,25R)- (CA INDEX NAME)

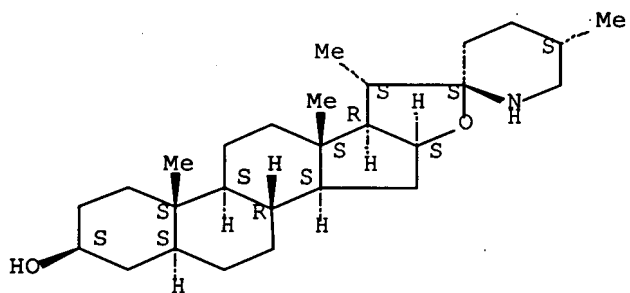
Absolute stereochemistry. Rotation (-).

10/563,743



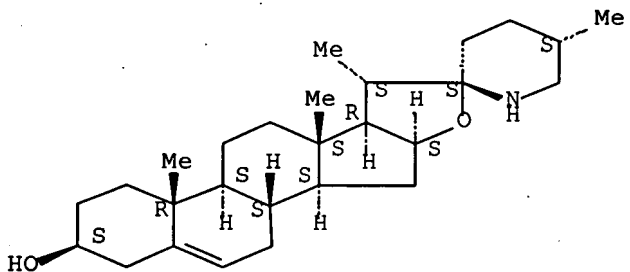
IT 77-59-8P, Tomatidine 546-40-7P,
Tomatid-5-en-3β-ol 1174-71-6P, Tomatida-3,5-diene
1181-86-8P, Tomatidine, N-acetyl-, acetate
1181-87-9P, Tomatid-5-en-3β-ol, N-acetyl-, acetate
107850-20-4P, β-Solamarine, picrolonate
RL: PREP (Preparation)
(preparation of)
RN 77-59-8 HCAPLUS
CN Spirosolan-3-ol, (3β,5α,22β,25S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 546-40-7 HCAPLUS
CN Spirosol-5-en-3-ol, (3β,22β,25S)- (9CI) (CA INDEX NAME)

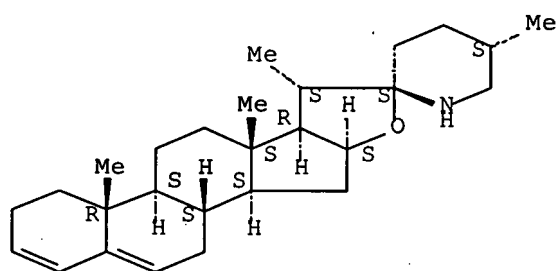
Absolute stereochemistry.



RN 1174-71-6 HCAPLUS
CN Spirosola-3,5-diene, (22β,25S)- (9CI) (CA INDEX NAME)

10/563,743

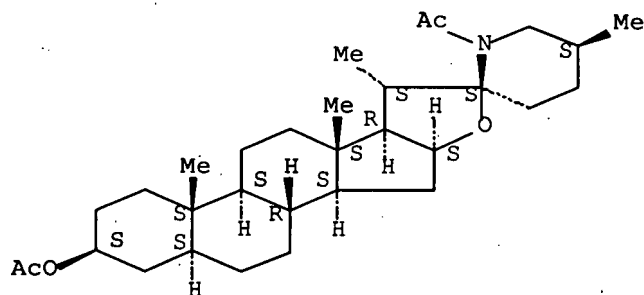
Absolute stereochemistry.



RN 1181-86-8 HCAPLUS

CN Spirosolan-3-ol, 28-acetyl-, acetate (ester),
(3β,5α,22β,25S)- (9CI) (CA INDEX NAME)

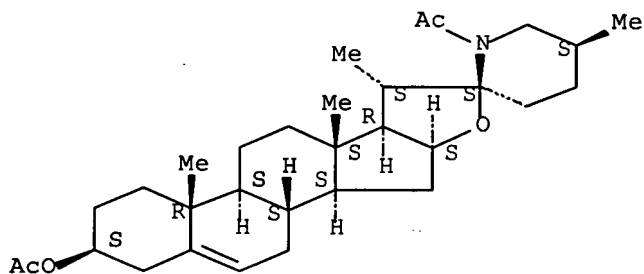
Absolute stereochemistry.



RN 1181-87-9 HCAPLUS

CN Spirosol-5-en-3-ol, 28-acetyl-, acetate (ester),
(3β,22β,25S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107850-20-4 HCAPLUS

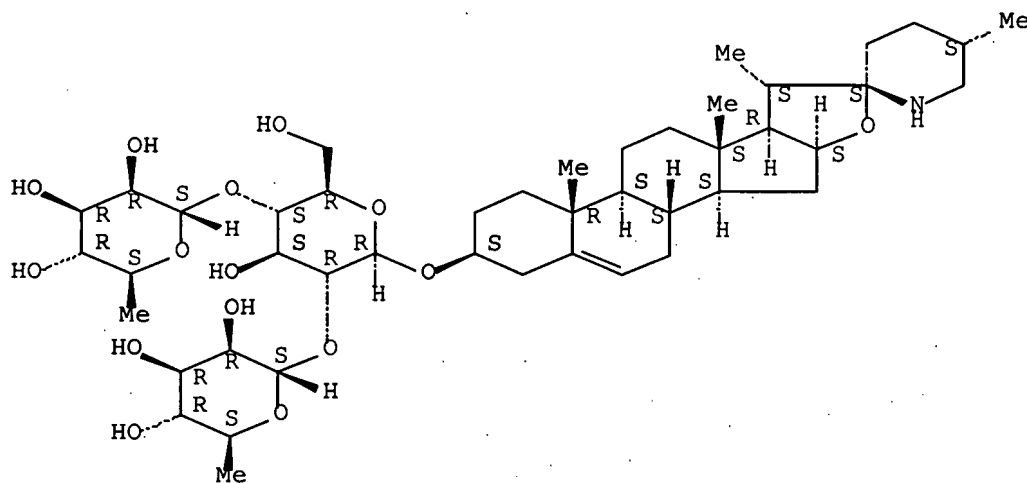
CN β-Solamarine, picrolonate (7CI) (CA INDEX NAME)

CM 1

CRN 3671-38-3

CMF C45 H73 N O15

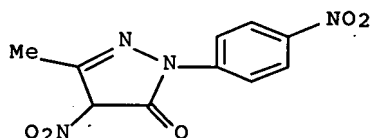
Absolute stereochemistry.



CM 2

CRN 550-74-3

CMF C10 H8 N4 O5



L124 ANSWER 46 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1963:403774 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 59:3774

ORIGINAL REFERENCE NO.: 59:730c-d

TITLE: Solanum alkaloids. XVI. The sugar moiety of solasonine

AUTHOR(S): Briggs, Lindsay H.; Cambie, R. C.; Hoare, J. L.

CORPORATE SOURCE: Univ. Auckland, N. Z.

SOURCE: Journal of the Chemical Society (1963) 2848-53

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

GI For diagram(s), see printed CA Issue.

AB cf. CA 56, 4808g. The sugar moiety of solasonine (I, R = solasodine) has been shown to be solatriose, O- α -L-rhamnopyranosyl-(1 \rightarrow 2)-O- $[\beta$ -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranose (I, R = H).

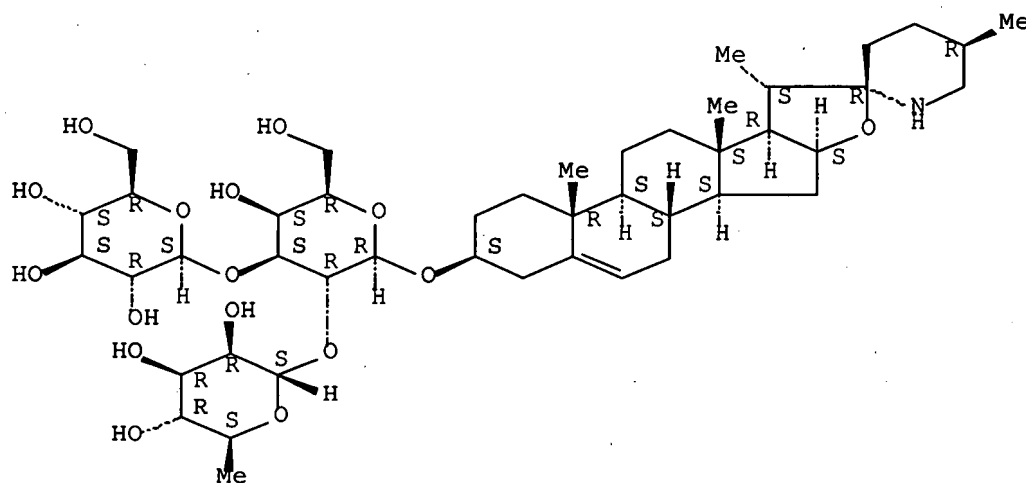
IT 19121-58-5

(Derived from data in the 7th Collective Formula Index
(1962-1966))

RN 19121-58-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

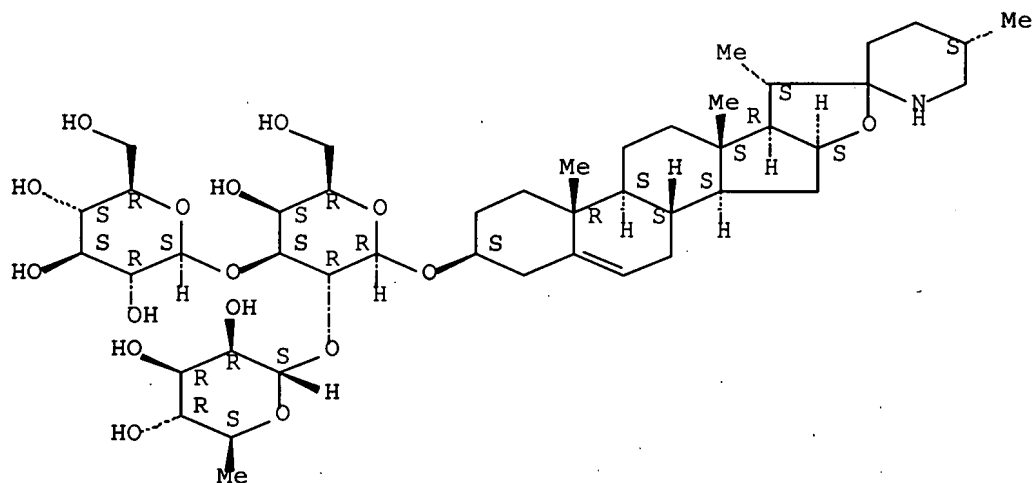
Absolute stereochemistry.

IT 909882-75-3P, Solasonine, O- α -L-rhamnopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranoseRL: PREP (Preparation)
(preparation of)

RN 909882-75-3 HCAPLUS

CN Solasonine, O- α -L-rhamnopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranose (7CI) (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 47 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1961:118631 HCAPLUS Full-text

DOCUMENT NUMBER: 55:118631

ORIGINAL REFERENCE NO.: 55:22351a-h

TITLE: The constitution of the leptins

AUTHOR(S): Kuhn, Richard; Low, Irmentraut

CORPORATE SOURCE: Max-Planck-Inst. Med. Research, Heidelberg, Germany

SOURCE: Chemische Berichte (1961), 94, 1088-95

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB The leptins isolated from the leaves of *Solanum chacoense* were glycosides of an x-acetoxysolanidine, which were converted by cleavage of the Ac group to leptinins, glycosides of an x-hydroxysolanidine (leptinidine). The high effectiveness of the leptins as resistance factors toward the Colorado beetle and its larvae was lost with the loss of the Ac group. Leptinin I (I) yielded on hydrolysis 1 mole glucose and 2 moles rhamnose, while leptinin II (II) gave 1 mole glucose, 1 mole rhamnose, and 1 mole galactose. Fresh leaves of *S. chacoense* (2 kg.) extracted with boiling H₂O, the filtered aqueous extract extracted with at least a half volume of BuOH, and the BuOH extract evaporated in vacuo yielded 12 g. crude product. Leaves (3 kg.) ground in a meat grinder and extracted with boiling H₂O gave in the same manner 14 g. crude product. Crude product (26 g.) chromatographed repeatedly on Al₂O₃ yielded 1.7 g. α-chaconine (III), 2.3 g. α-solanine (IV), 0.8 g. mixture of IV and II, about 1.2 g. I, 0.7 g. mixture of I and II, 0.35 g. mixture of I and III, 1.2 g. leptin I (V), 0.4 g. V and chaconine, about 2.0 g. leptin III, and 1.7 g. leptin IV. V (90 mg.), needles, m. 230° (in vacuo) (H₂O), [α]_D -85° (C₅H₅N), R_αS 1.8 (5:2:1 EtOAc-C₅H₅N-H₂O) (R_αS = value relative to IV = 1.0), 8 cc. MeOH, and 1 cc. 12N HCl refluxed 2 hrs., diluted with H₂O, extracted with CHCl₃, and the residue from the extract chromatographed on Al₂O₃ gave the esteraglycon x-acetylleptinidine (VI), needles, m. 192-6° (aqueous MeOH). VI in AcOH hydrogenated over PtO₂ absorbed 1.02 moles H. VI with Ac₂O and C₅H₅N yielded diacetylleptinidine (VII). V (300 mg.) refluxed 1 hr. with 50 cc. saturated aqueous Ba(OH)₂ gave 290 mg. I, m. above 230° (aqueous MeOH), [α]_D -90°, R_αS 1.1. The crude product (25 g.) from 4.5 kg. leaves treated with hot concentrated NH₄OH to precipitate 4.3 g. III and IV, the aqueous filtrate

shaken with BuOH, the BuOH extract evaporated, the residue hydrolyzed with aqueous Ba(OH)₂, and the crude product chromatographed on Al₂O₃ gave 3.6 g. I and II and 5.8 g. leptinin III and leptinin IV; if the leaves had been stored too long before processing, the I and II were mostly deacetylated to I and II. The hydrolysis of I with HCl-MeOH gave leptinidine (VIII), m. 239-40° (MeOH), [α]_D -24° (CHCl₃). VIII in AcOH hydrogenated over PtO₂ absorbed 1.0 mole H. VIII was converted to VII, needles, m. 194-6° (MeOH), [α]_D -36° (CHCl₃). The crude products from the leaves treated with NH₄OH to remove the III and IV, the aqueous phase hydrolyzed with aqueous Ba(OH)₂, the H₂O-insol. baryta-glycosides hydrolyzed with MeOH-HCl, and the resulting mixture of VIII and III chromatographed on Al₂O₃ gave pure VIII, m. 247°. The crystalline mixture of III and II (obtained by repeated chromatography of the crude product) chromatographed again repeatedly on Al₂O₃ gave II, prisms, m. about 255° (aqueous MeOH), R_aS 0.8, [α]_D -62° (C₅H₅N), also obtained by chromatography of a mixture of II with leptin III. II hydrolyzed with 9:1 MeOH-12N HCl gave VIII which yielded VII, m. 188-92°.

IT 101030-82-4 109404-37-7 120576-50-3

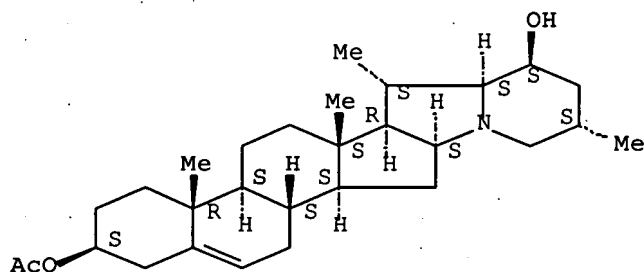
(Derived from data in the 6th Collective Formula Index
(1957-1961))

RN 101030-82-4 HCAPLUS

RN 109404-37-7 HCAPLUS

CN Solanid-5-ene-3,23-diol, 3-acetate, (3β,23β)- (9CI) (CA INDEX NAME)

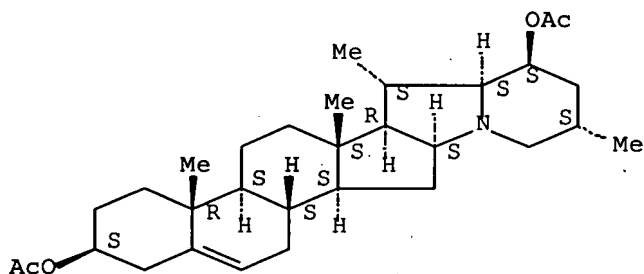
Absolute stereochemistry.



RN 120576-50-3 HCAPLUS

CN Solanid-5-ene-3,23-diol, diacetate (ester), (3β,23β)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



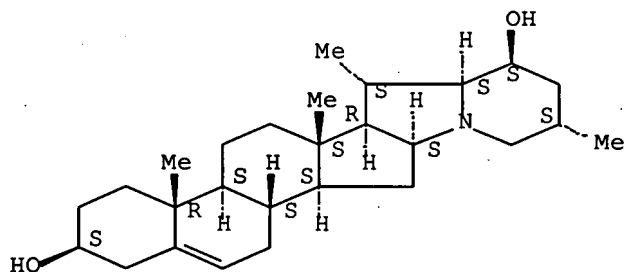
IT 24884-17-1, Leptinidine
(acetates)

10/563,743

RN 24884-17-1 HCAPLUS

CN Solanid-5-ene-3,23-diol, (3 β ,23 β)- (CA INDEX NAME)

Absolute stereochemistry.



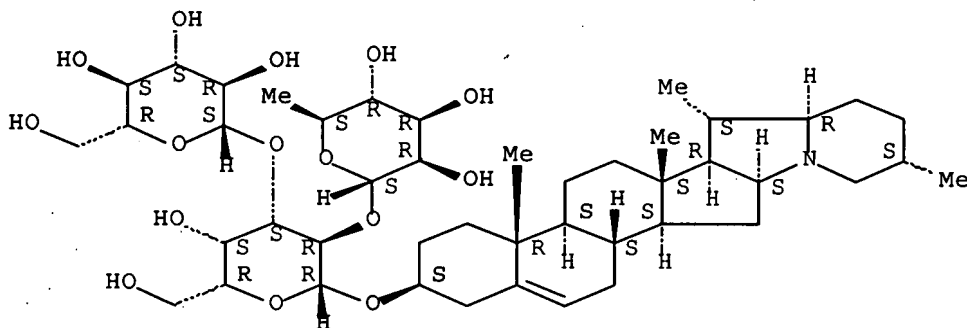
(and acetates, structure of
(glycosides from

IT 20562-02-1P, α -Solanine 20562-03-2P,
 α -Chaconine 100994-57-8P, Leptinine II
101009-59-0P, Leptinine I 101030-83-5P, Leptine I
RL: PREP (Preparation)
(preparation of)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

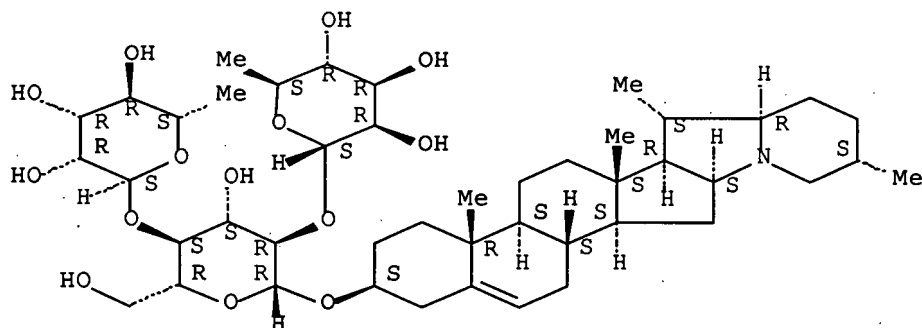
Absolute stereochemistry.



RN 20562-03-2 HCAPLUS

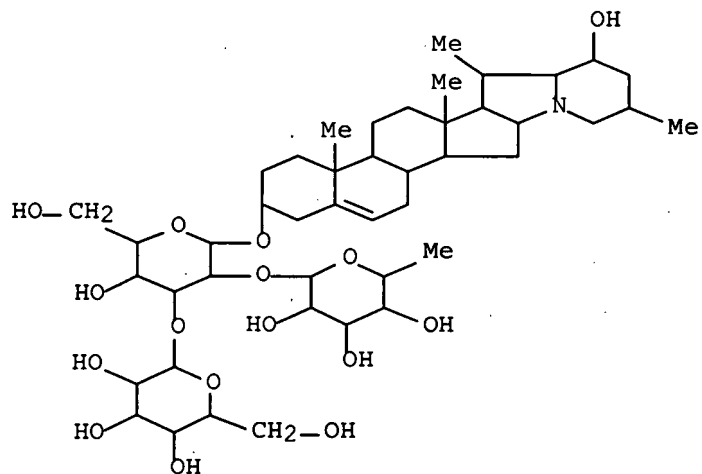
CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



RN 100994-57-8 HCAPLUS

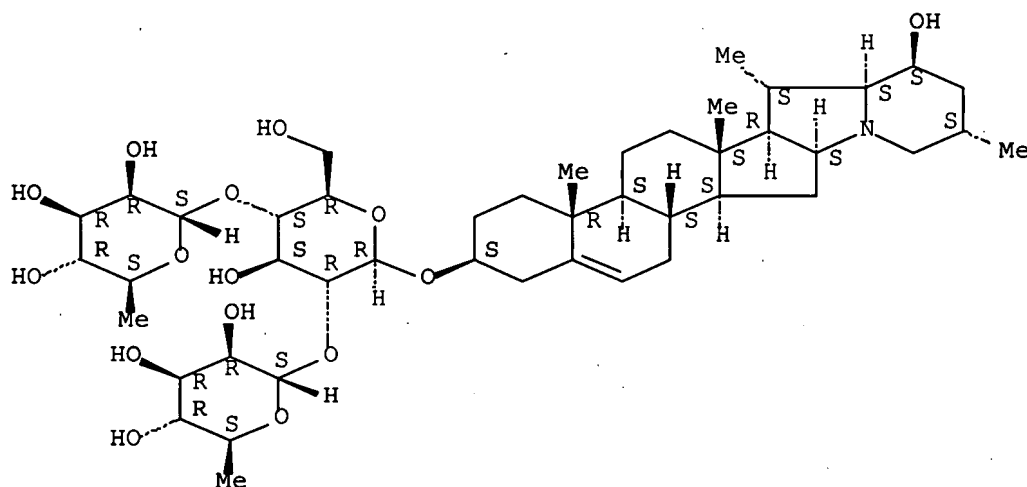
CN β -D-Galactopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)



RN 101009-59-0 HCAPLUS

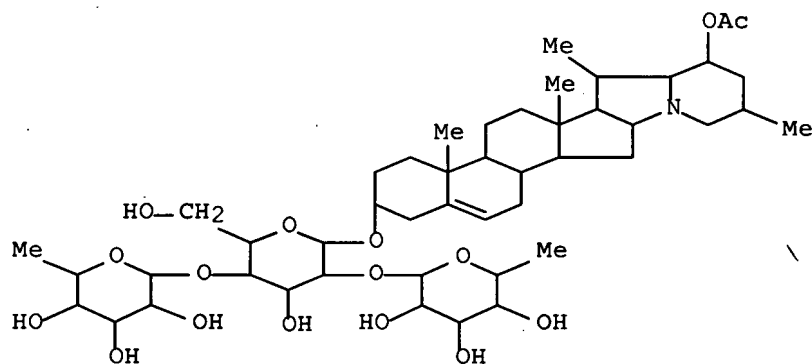
CN β -D-Glucopyranoside, (3 β ,23 β)-23-hydroxysolanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 101030-83-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,23 β)-23-(acetyloxy)solanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)



L124 ANSWER 48 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1961:18600 HCAPLUS Full-text

DOCUMENT NUMBER: 55:18600

ORIGINAL REFERENCE NO.: 55:3737e-f

TITLE: Acetate in the biosynthesis of chaconine and solanine in potato sprouts

AUTHOR(S): Guseva, A. R.; Borikhina, M. G.; Paseshnichenko, V. A.

CORPORATE SOURCE: A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow

SOURCE: Biokhimiya (Moscow) (1960), 25, 282-4
CODEN: BIOHAO; ISSN: 0320-9725

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

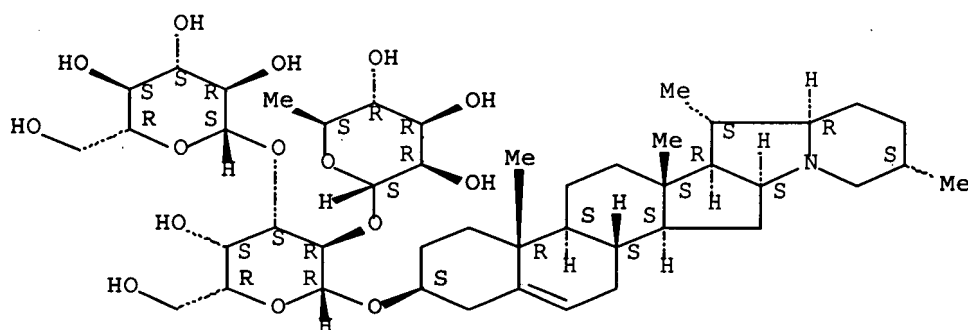
AB Acetate-1-C14 was utilized by potato sprouts in the synthesis of glycoalkaloids. The specific radioactivity of α -chaconine was twice as intense as that of α -solanine. The greater α -chaconine radioactivity was due to the greater activity of its aglycon, solanidine.

IT 20562-02-1P, α -Solanine 20562-03-2P,
 α -Chaconine
 RL: PREP (Preparation)
 (formation in potatoes, acetate metabolism and)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

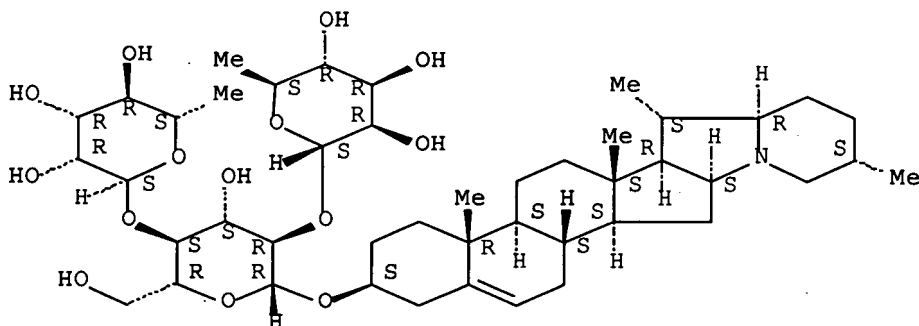
Absolute stereochemistry.



RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 49 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1958:18115 HCAPLUS Full-text

DOCUMENT NUMBER: 52:18115

ORIGINAL REFERENCE NO.: 52:3262b-e

TITLE: Paper chromatographic separation and
 identification of the alkaloidal glycosides from

10/563,743

AUTHOR(S): Solanum aviculare
 Szendey, Georg L.
 SOURCE: Arch. Pharm. (1957), 290, 563-7
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB cf. Kuhn, et al., C.A. 49, 9232h. Mixts. of solasonine (I) and solamargine (II), and of their aglucone, solasodine (III), are qualitatively and semiquantitatively separated and identified by ascending chromatography on Schleicher & Schull Number 2043b or Macherey, Nagel Number 214 paper, with BuOH-AcOH-H₂O (40:8:20) as solvent and 20% SbCl₃ in CHCl₃ as spray for viewing the spots; development lasts 16-18 hrs. at 22 ± 2°. I, II, and III spots show R_f 0.55, 0.73, and 0.90-0.95, resp. The pure alkaloidal glycosides as well as exts. containing them from the crude drug may thus be determined. Acid hydrolysis of the glycosides gives L-rhamnose, D-glucose, and D-galactose, which form spots of R_f 0.45, 0.30, and 0.20, resp., when chromatographed on Macherey, Nagel Number 618 paper with BuOH-EtOH-H₂O (8:3:10) as solvent and a spray reagent prepared by mixing 5 ml. of 10% H₃PO₄ and 10 ml. BuOH with 1-2 ml. PhNH₂, shaking the resulting precipitate with 100 ml. of BuOH-CHCl₃ mixture (1:1), and filtering; the sprayed paper strips are heated 5-10 min. at 105°. Digitoxose, digilanidobiose, and D-arabinose give spots with R_f 0.56, 0.35, and 0.34, resp., by this method. These methods can be used to determine 20-30 λ glycosides and 3-8 drops of a 2-3% aqueous solution of the sugars; the sensitivity is increased by observing the spots in ultraviolet light.

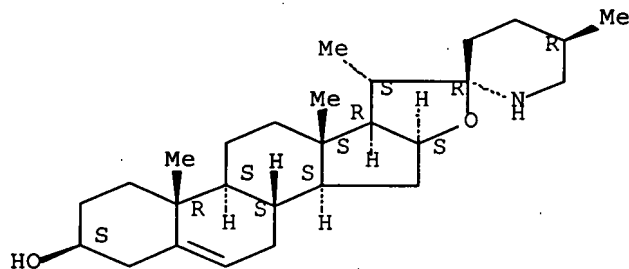
IT 126-17-0P, Solasodine 19121-58-5P, Solasonine 20311-51-7P, Solamargine

RL: PREP (Preparation)
 (separation and determination of)

RN 126-17-0 HCAPLUS

CN Spirosol-5-en-3-ol, (3β,22α,25R)- (CA INDEX NAME)

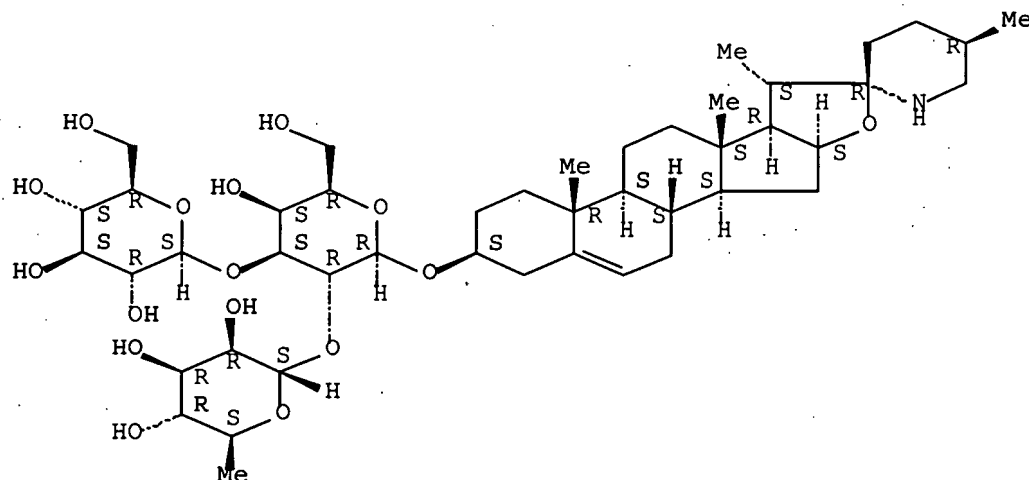
Absolute stereochemistry. Rotation (-).



RN 19121-58-5 HCAPLUS

CN β-D-Galactopyranoside, (3β,22α,25R)-spirosol-5-en-3-yl O-6-deoxy-α-L-mannopyranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→3)]- (CA INDEX NAME)

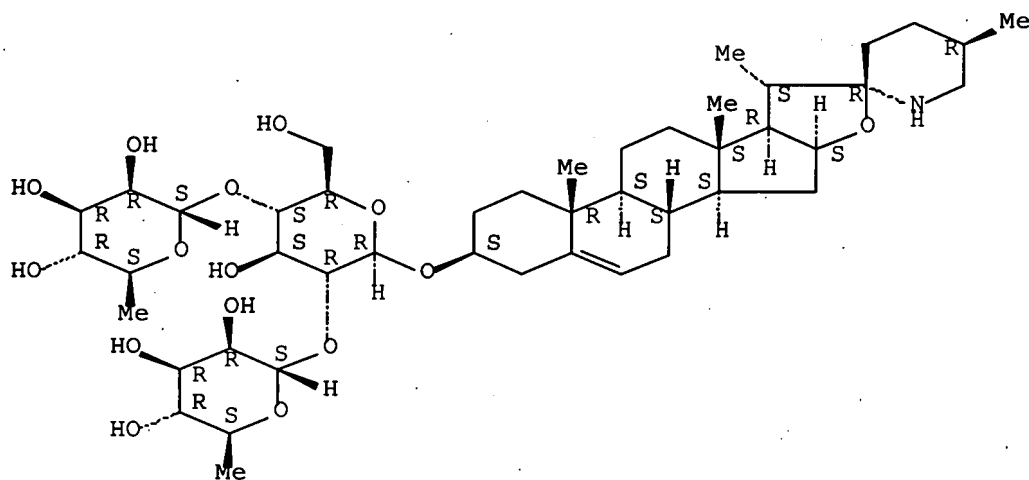
Absolute stereochemistry.



RN 20311-51-7 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 50 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1957:9402 HCAPLUS Full-text

DOCUMENT NUMBER: 51:9402

ORIGINAL REFERENCE NO.: 51:1990g-i,1991a-f

TITLE: The structure of solanine

AUTHOR(S): Kuhn, Richard; Low, Irmentrout; Trischmann, Heinrich

SOURCE: Chemische Berichte (1955), 88, 1492-1507

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB By means of chromatographic methods it was shown that solanine can be degraded into six components: α -, β -, and γ -solanine and α -, β -, and γ -chaconine. α -Solanine (I) was shown to be α -L-rhamnopyranosyl-1(\rightarrow 2 galactose)- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyl-5-solaniden-3 β -ol. β -Solanine (II) was shown to be β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyl-5-solaniden-3 β -ol. Solanine (10 g.) refluxed 8 hrs. with 500 cc. 0.1M H₂SO₄, neutralized with BaCO₃ and concentrated under vacuum gave galactose (III), glucose (IV), rhamnose (V), solabiose (VI), m. .apprx. 200°, [α]D₂₂ 40.7° (c 1.376, H₂O), and some solatriose (VII) (MacLeod and Robison, C.A. 23, 4908). Hydrolysis of VI with 0.1N H₂SO₄ 2 hrs. gave III and IV. VI (190 mg.) heated with 3 cc. Ac₂O and 5 drops of pyridine 2 hrs. and the mixture treated with ice H₂O gave 160 mg. octaacetyl-VI (VIII), m. 75° (with sintering above 70°), [α]D₂₀ 27° (c 0.91, absolute EtOH). VI phenylosazone m. 225° (decomposition). VI with almond emulsin gives III and IV. VI (20 mg.) gave 31 mg. formal dimedon, m. 192-3°. Solanine Ac₂O gave nonaacetyl-I.HOAc (IX), m. 194-5°, [α]D₂₀ -18.5° (c 1.0 absolute, EtOH), IX treated with Mg(OH)₂ in MeOH-H₂O gave nonaacetyl-I, m. 187-9° (evacuated capillary), [α]D₂₀ -17.5° (c 1.02, absolute alc.). IX in alc. exposed to light yields a compound, m. 215-16°. VII, colorless needles, m. 200° (froths and decompose at 150-60°) (from MeOH-EtOH), RLactose 1.08, [α]D₂₀ -7.5° after 5 min. (c 1.64%, H₂O), hydrolyzed with 0.1M H₂SO₄ gives III and IV. Decaacetyl-VII m. 73-7°, b0.001 240-60°. Peracetyl-I (19 g.) degraded with HBr-AcOH yielded by chromatographing on 1:1 Carboraffin-celite 350 mg. weakly levorotatory fraction recrystd. from alc. as needles, 243-4° (N content 10.40%), and a second crop of crystals, m. 225-30° (N content 9.87%). Evaporation of the mother liquor, treatment with Ac₂O, decomposing with ice water, and distillation of the Et₂O extract at 200-30° and 0.001 mm. gave heptaacetyl-VII (X), m. 75-80°, [α]D₁₉ -3.5° (c 1.74, MeOH). X with MeOH-NH₃ gave 50 mg. L-rhamnosyl-D-galactose (RLactose 1.57). Solanine (3 g.) in 60 cc. HCONMe₂ treated with 20 g. Ag₂O cc. MeI 60 hrs. gave 3.3 g. compound, C₅₅H₉₄O₁₅N₁ (XI), 140-2°. XI treated with fresh Ag₂O in MeOH-H₂O 12 hrs. at 20° gave permethylated-I (C₅₄H₉₁O₁₅N) (XII), colorless needles, m. 175-7°, [α]D₂₁ -41.5° (c 1.00, MeOH). Acid hydrolysis of XII 2,3,4-trimethyl-L-rhamnopyranose (XIII), b0.001 80-90°, [α]D₂₄ 27.5° (c 1.0, H₂O). XIII treated with PhNH₂ and NH₄Cl in MeOH gave XIII anilide, 124-5°, [α]D₂₂ 137.0° \rightarrow 16.0° (absolute alc. plus a trace of HCl). Hydrolysis of XII gave 2,3,4,6-tetramethyl-D-glucose (XIV), m. 67-9°; anilide, m. 136-7°, [α]D₂₃ 237.0° (c 0.5, acetone), as well as 4,6-dimethyl- α -D-galactose (XV), [α]D₂₃ 133° at 0 min. (c 0.666%, H₂O). Partial hydrolysis of solanine gave β -solanine, needles, m. 295° (decomposition), [α]D₂₀ -31° (c 0.77, MeOH), and impure γ -solanine, needles, m. 240-50°, [α]D₂₁ -26° (c 0.98, MeOH). From the mother liquor of the extraction of the seeds of Solanum tuberosum were obtained solanidine dirhamnoglucoside (α -chaconine) (XVI), m. 242° (from 80% MeOH), [α]D₂₀ -83.5° (c 1.03, C₅H₅N), solanidine rhamnoglucoside (β -chaconine) (XVII), m. 255° (decomposition), [α]D₂₀ -61.5° (c 1.02, C₅H₅N), and solanidine glucoside (γ -chaconine) (XVIII), m. 243-4°, [α]D₂₀ -40.3° (c 1.08, C₅H₅N), I (500 g.) in 1:1:1:1. Decalin-dioxane-AcOH-H₂O hydrogenated over 200 mg. PtO₂ at 20° and 760 mm. for 20 hrs. gave dihydro-I (XIX), m. 292-3° (decompose after sintering above 250°), [α]D₂₂ -43.5° (c 1.66, C₅H₅N). XIX refluxed in concentrated HCl-MeOH gave dihydrosolanidine, colorless needles, m. 221-2° (from MeOH), [α]D₂₅ 30.0° (c 0.666, CHCl₃).

IT 474-08-8 120024-69-3 120024-70-6

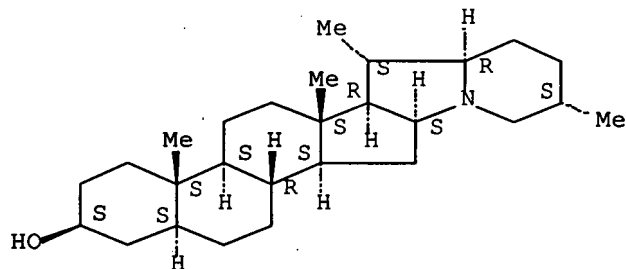
(Derived from data in the 6th Collective Formula Index
(1957-1961))

RN 474-08-8 HCAPLUS

10/563,743

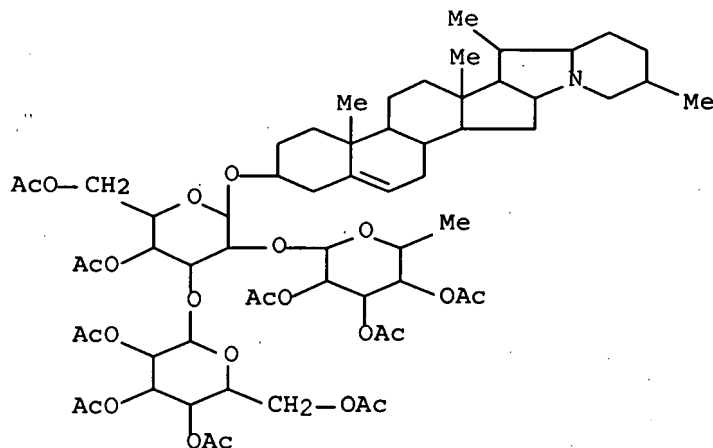
CN Solanidan-3-ol, (3 β ,5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 120024-69-3 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 3)-O-
[2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]-,
4,6-diacetate (9CI) (CA INDEX NAME)



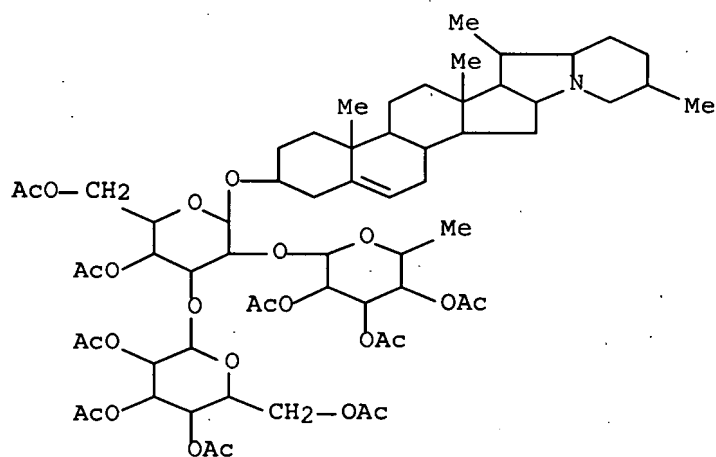
RN 120024-70-6 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 3)-O-
[2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]-,
4,6-diacetate, acetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 120024-69-3

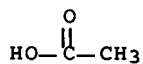
CMF C63 H91 N O24



CM 2

CRN 64-19-7

CMF C2 H4 O2

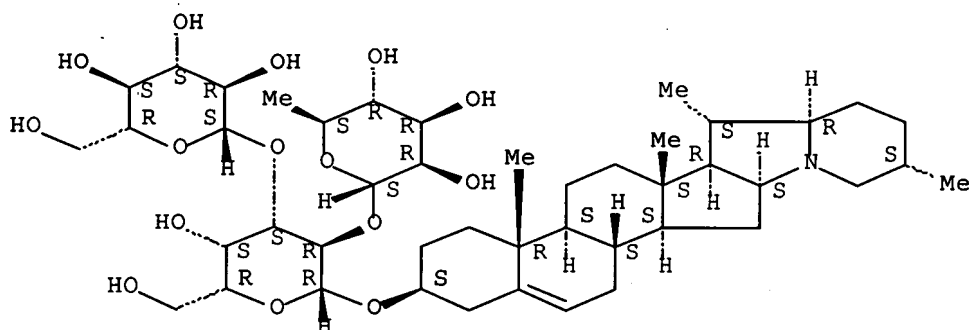


IT 20562-02-1, 5-Solaniden-3 β -ol, α -L-rhamnopyranosyl-(1 \rightarrow 2 (galactose))- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyl-(as structure for α -solanine)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- (CA INDEX NAME)

Absolute stereochemistry.



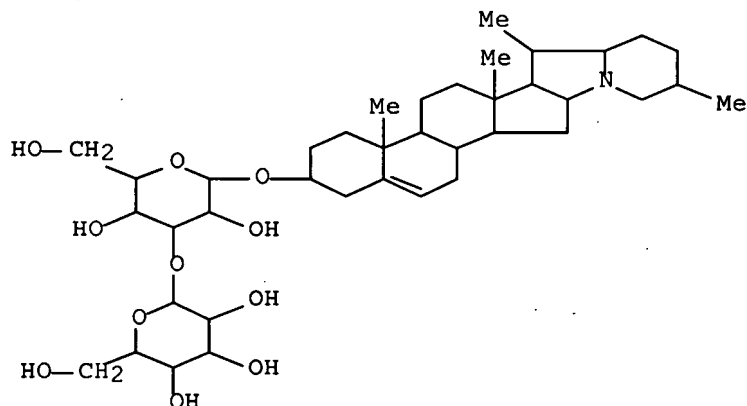
IT 61877-94-9, 5-Solaniden-3 β -ol, β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyl-

10/563,743

(as structure for β -solanine)

RN 61877-94-9 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
3-O- β -D-glucopyranosyl- (CA INDEX NAME)

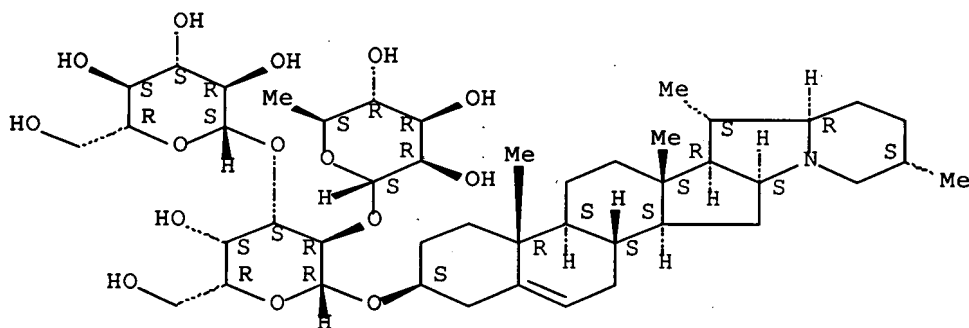


IT 20562-02-1, α -Solanine
(derivs. and structure of)

RN 20562-02-1 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
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Absolute stereochemistry.

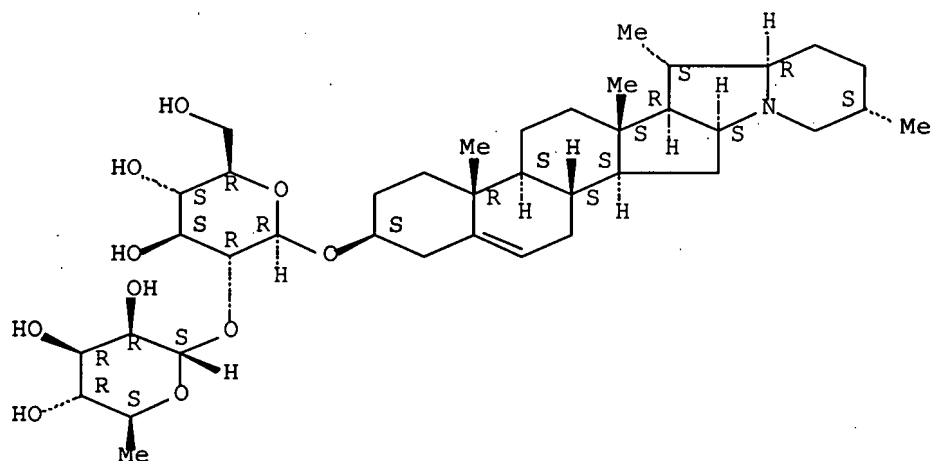


IT 472-51-5, β -Chaconine 511-36-4,
 γ -Chaconine 20562-03-2, α -Chaconine
(from solanine)

RN 472-51-5 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
2-O-(6-deoxy- α -L-mannopyranosyl)- (CA INDEX NAME)

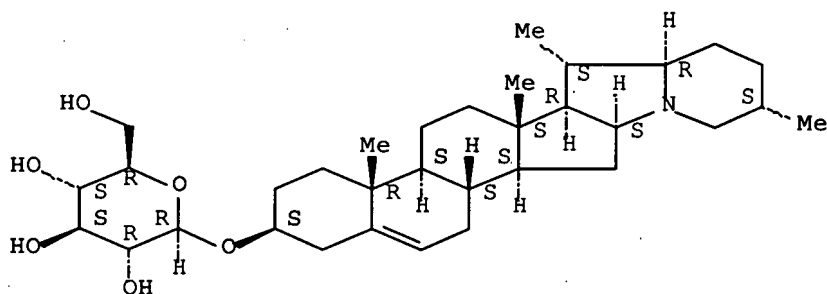
Absolute stereochemistry.



RN 511-36-4 HCAPLUS

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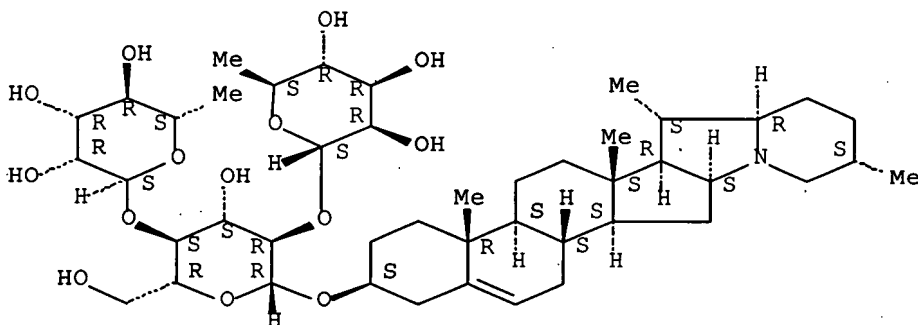
Absolute stereochemistry.



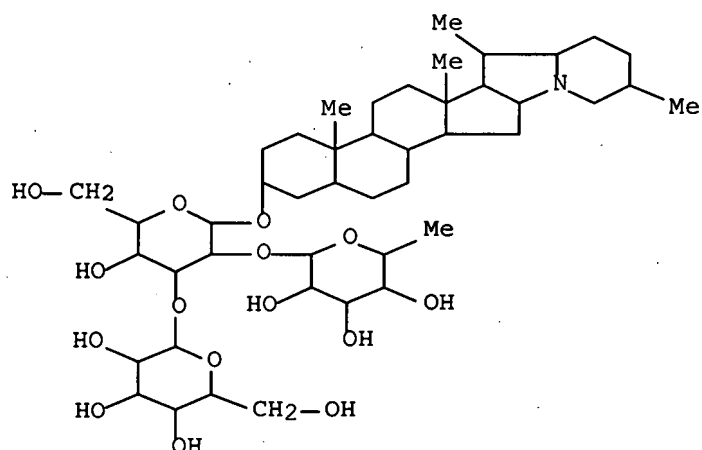
RN 20562-03-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-solanid-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

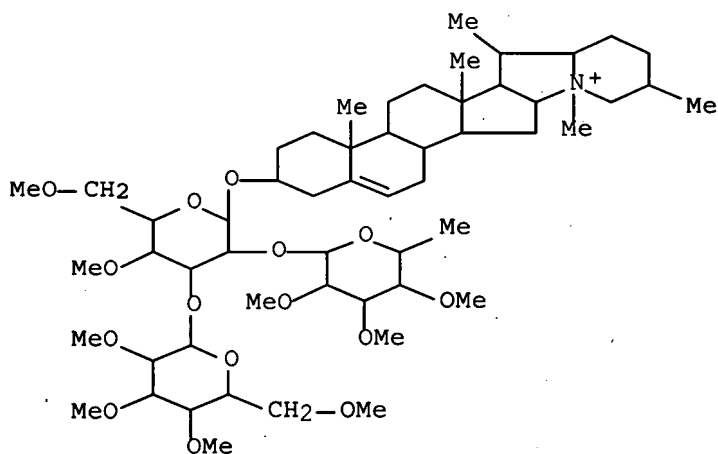
Absolute stereochemistry.



IT 74918-26-6P, α -Solanine, dihydro-, dihydrate
 120746-73-8P, α -Solanine, nonamethyl-, methiodide
 120856-98-6P, α -Solanine, nonamethyl-
 906321-46-8P, Solanidine, dihydro-
 RL: PREP (Preparation)
 (preparation of)
 RN 74918-26-6 HCAPLUS
 CN β -D-Galactopyranoside, (3 β ,5 α)-solanidan-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[β -D-
 glucopyranosyl-(1 \rightarrow 3)]- (9CI) (CA INDEX NAME)



RN 120746-73-8 HCAPLUS
 CN Solanid-5-enium, 28-methyl-3-[(O-2,3,4,6-tetra-O-methyl- β -D-
 glucopyranosyl-(1 \rightarrow 3)-O-[2,3,4-tri-O-methyl-6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 2)]-4,6-di-O-methyl- β -D-
 galactopyranosyl)oxy]-, iodide, (3 β)- (9CI) (CA INDEX NAME)

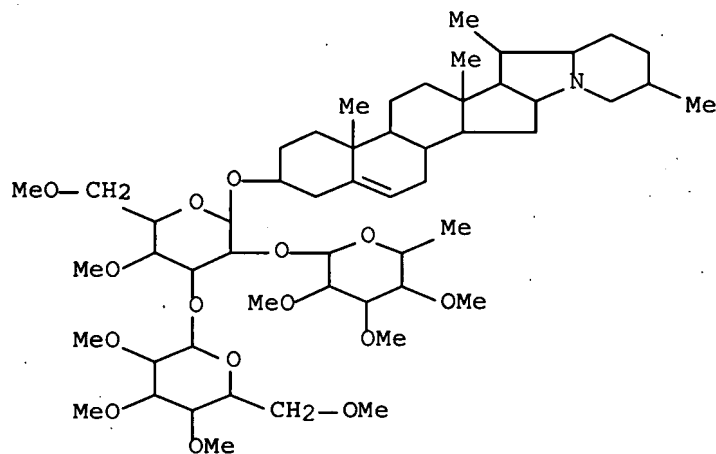


● I⁻

10/563,743

RN 120856-98-6 HCAPLUS

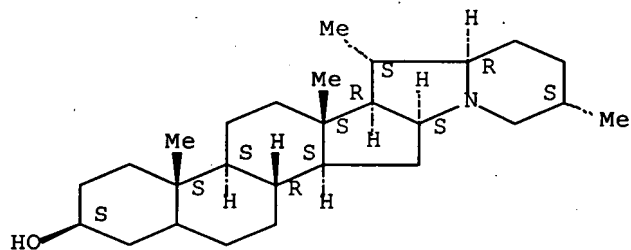
CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
O-2,3,4,6-tetra-O-methyl- β -D-glucopyranosyl-(1 \rightarrow 3)-O-
[2,3,4-tri-O-methyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)]-
4,6-di-O-methyl- (9CI) (CA INDEX NAME)



RN 906321-46-8 HCAPLUS

CN Solanidan-3 β -ol (6CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 511-37-5, γ -Solanine 61877-94-9,

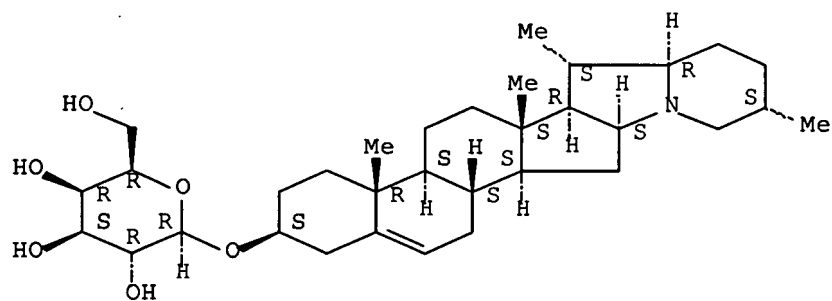
β -Solanine
(structure of)

RN 511-37-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl (CA INDEX
NAME)

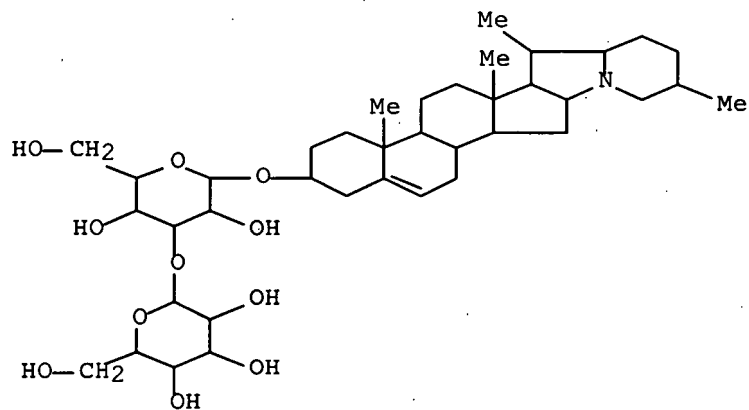
Absolute stereochemistry.

10/563,743



RN 61877-94-9 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-solanid-5-en-3-yl
3-O- β -D-glucopyranosyl- (CA INDEX NAME)



=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 17:42:30 ON 24 JUL 2007

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FILE COVERS 1907 - 24 Jul 2007 VOL 147 ISS 5

FILE LAST UPDATED: 23 Jul 2007 (20070723/ED)

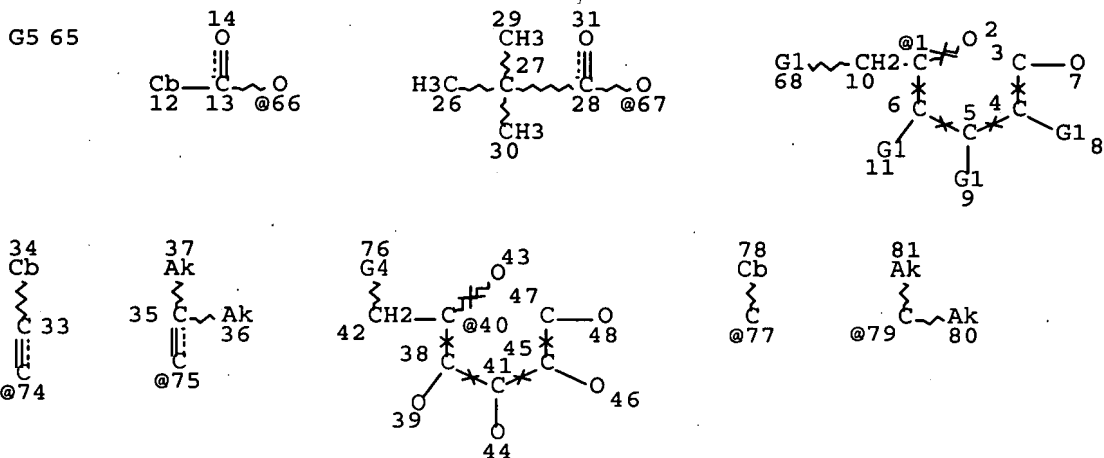
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This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

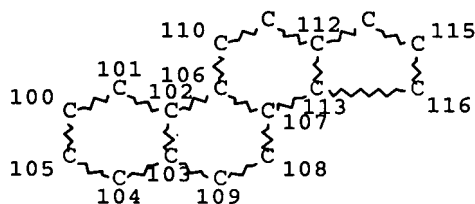
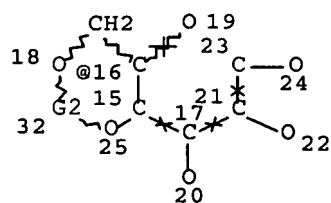
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L1 STR



99

111 114



Page 2-A

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VAR G2=75/74/79/77

VAR G4=OH/67

VAR G5=1/16/40

NODE ATTRIBUTES:

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NSPEC IS RC AT 3

NSPEC IS RC AT 19

NSPEC IS RC AT 23

NSPEC IS RC AT 43

NSPEC IS RC AT 47

CONNECT IS E1 RC AT 36

CONNECT IS E1 RC AT 37

CONNECT IS E1 RC AT 80

CONNECT IS E1 RC AT 81

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

GGCAT IS MCY UNS AT 34

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DEFAULT ECLEVEL IS LIMITED

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ECOUNT IS E6 C AT 78

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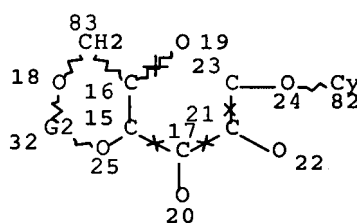
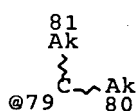
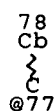
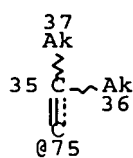
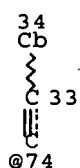
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NUMBER OF NODES IS 78

STEREO ATTRIBUTES: NONE

L2 7869 SEA FILE=REGISTRY.SSS FUL L1

L3 STR



VAR G2=75/74/79/77

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NSPEC IS RC AT 23

CONNECT IS E1 RC AT 36

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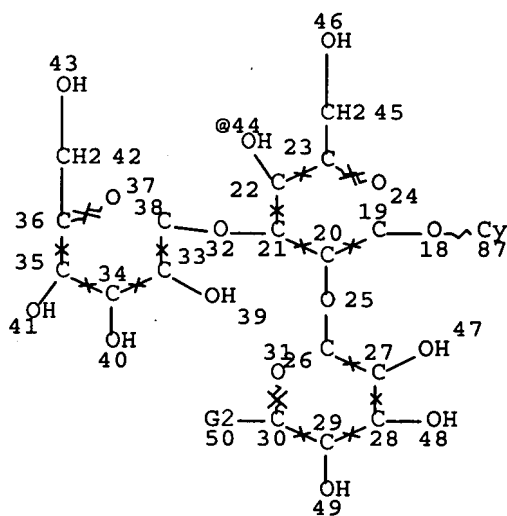
10/563,743

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 GGCAT IS PCY AT 82
 DEFAULT ECLEVEL IS LIMITED
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 NUMBER OF NODES IS 26

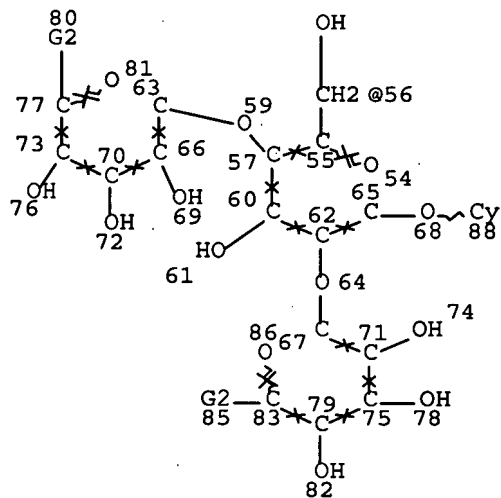
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 L5 STR

G1 51 Ak@52 Cy @53



58

Page 1-A



Page 2-A

VAR G1=44/56

VAR G2=52/53

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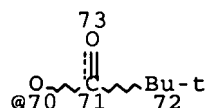
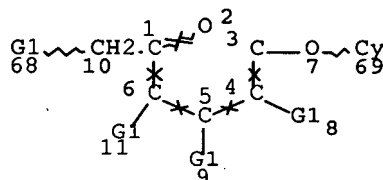
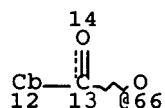
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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M17 C AT 87
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

L7 STR



VAR G1=66/70

NODE ATTRIBUTES:

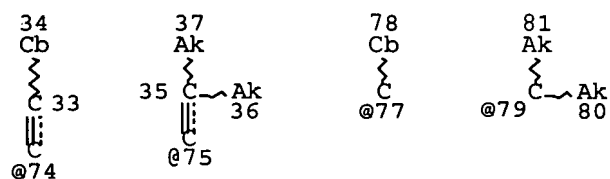
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 DEFAULT MLEVEL IS ATOM
 GGCAT IS MCY UNS AT 12
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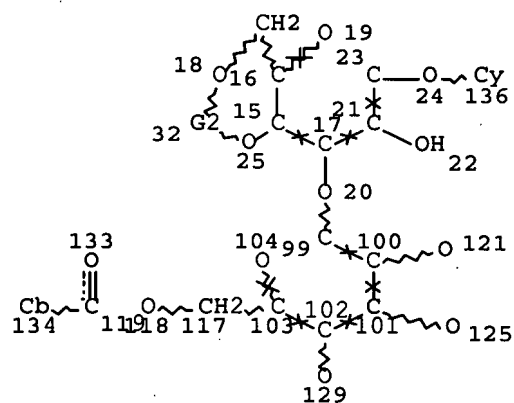
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L19 STR



135

Page 1-A



Page 2-A

VAR G2=75/74/79/77

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NSPEC	IS	RC	AT	23
NSPEC	IS	RC	AT	99
NSPEC	IS	RC	AT	104
CONNECT	IS	E1	RC	AT 36
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DEFAULT MLEVEL IS ATOM

GGCAT	IS	MCY	UNS	AT 34
GGCAT	IS	MCY	UNS	AT 78
GGCAT	IS	MCY	UNS	AT 134
GGCAT	IS	PCY		AT 136

DEFAULT ECLEVEL IS LIMITED

ECOUNT	IS	E6	C	AT 34
ECOUNT	IS	E6	C	AT 78
ECOUNT	IS	E6	C	AT 134

ECOUNT IS M17 C AT 136

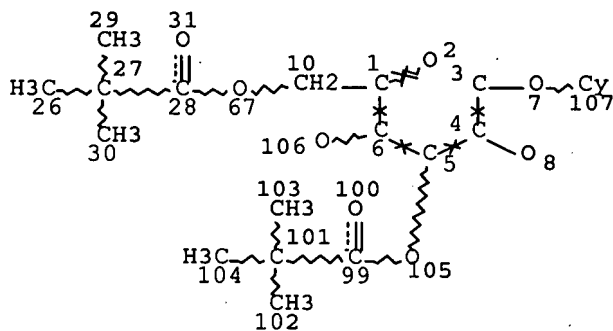
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE

L20 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 2

NSPEC IS RC AT 3

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY AT 107

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M17 C AT 107

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

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L26	400	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	9614.3/RID
L30	100	SEA	FILE=REGISTRY	SUB=L2	SSS FUL	L3
L32	254	SEA	FILE=REGISTRY	SUB=L2	SSS FUL	L5
L34	60	SEA	FILE=REGISTRY	SUB=L2	SSS FUL	L7
L36	1	SEA	FILE=REGISTRY	SUB=L2	SSS FUL	L19
L38	73	SEA	FILE=REGISTRY	SUB=L2	SSS FUL	L20
L39	2	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	CHACOTRIOSE?
L40	3	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	SOLATRIOSE?
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L44	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L42 (L) STEROID#/OBI
L45	27601	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	GLYCOSYLATION+OLD,NT/CT
L46	571499	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STEROIDS+OLD,NT/CT
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L49	776	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	TRISACCHARIDES/CT
L50	5	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND L49
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L105 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L30 OR L34 OR L36 OR
L38) AND (L24 OR L26)
L106 243 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 (L) PREP/RL
L107 57 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND (L24 OR L26)
L114 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 AND (L53 OR L54 OR
L56 OR L57)
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L117 3779 SEA FILE=HCAPLUS ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
OR WILSON A?/AU OR WEYMOUTH A?/AU
L118 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 AND L117
L119 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND (1840-2004)/PRY,
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L120 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L107 AND (1840-2004)/PRY
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L122 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L121 AND (1840-2004)/PRY
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L125 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L122 NOT (L118 OR L119
OR L120)

=> d ibib ed abs hitstr l125 1-19

L125 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:498420 HCAPLUS Full-text

DOCUMENT NUMBER: 145:103913

TITLE: Preparation and application for bioactive
saponin with partially protective thioglucoside
as donor

INVENTOR(S): Du, Yuguo; Gu, Guofeng

PATENT ASSIGNEE(S): Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13
pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1680424	A	20051012	CN 2004-10030887	200404 09

PRIORITY APPLN. INFO.: <--
CN 2004-10030887

200404
09

OTHER SOURCE(S): CASREACT 145:103913; MARPAT 145:103913

ED Entered STN: 29 May 2006

AB Saponins (3 β ,25R)-spirost-5-en-3-yl O-6-deoxy- α -L- mannopyranosyl-(1 \rightarrow 2)-O- [β -
D-glucopyranosyl-(1 \rightarrow 4)]- β -D-galactopyranoside and (3 β ,25R)-spirost-5-en-3-yl

O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-galactopyranoside, are prepared with partially protective thioglucoside, 1-methylethyl 1-thio- β -D-galactopyranoside, as donor. The claimed saponin can be used in anticancer/antiinflammatory drugs or compns. as main or auxiliary component.

IT 753004-03-4P

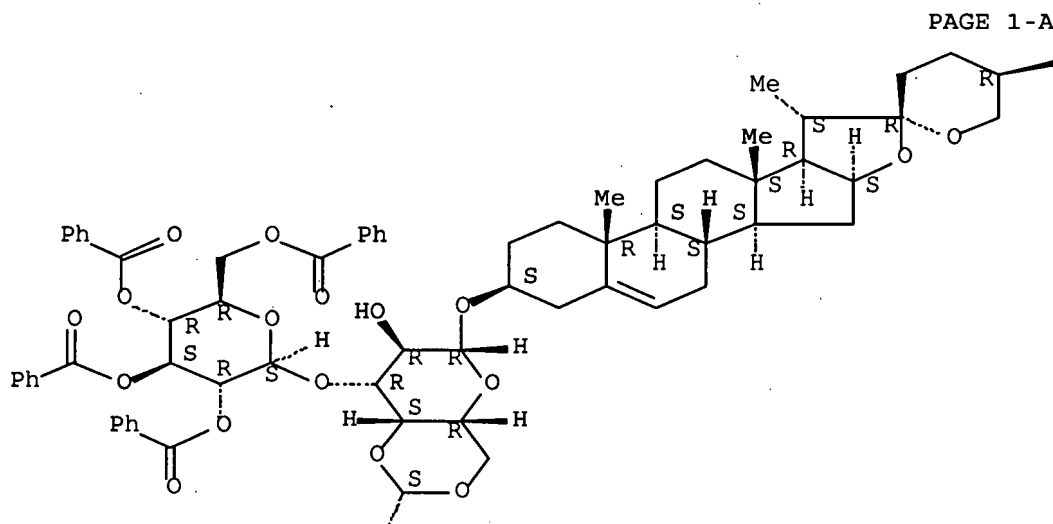
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)

(preparation and application for bioactive saponin with partially protective thioglucoside as donor)

RN 753004-03-4 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,25R)-spirost-5-en-3-yl
 4,6-O-[(S)-phenylmethylene]-3-O-(2,3,4,6-tetra-O-benzoyl- β -D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 1-B

Me

PAGE 2-A

Ph

L125 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:101591 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:150588
 TITLE: Synthesis of of 20(S)-ginsenoside Rh2
 INVENTOR(S): Hui, Yongzheng; Yang, Zhiqi; Liu, Junyao; Teng, Jijun; Xie, Huiqin; Zhang, Jie

10/563,743

PATENT ASSIGNEE(S): Shanghai Innovative Research Center of
Traditional Chinese Medicine, Peop. Rep. China
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006010307	A1	20060202	WO 2005-CN675	20050516

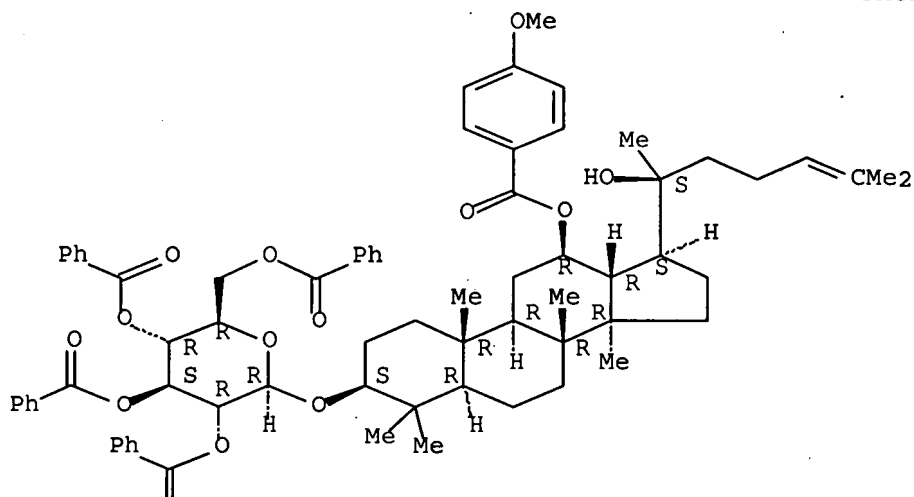
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	CN 1587273	A	20050302	CN 2004-10053269	20040729
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PRIORITY APPLN. INFO.: CN 2004-10053269 A 20040729
<--

OTHER SOURCE(S): MARPAT 144:150588
ED Entered STN: 03 Feb 2006
AB A synthetic method of 20(S)-ginsenoside Rh2, i.e. 20(S)-protopanaxadiol 3-O- β -D-glucopyranoside, comprising: selectively protecting protopanaxadiol first to afford monosubstituted protopanaxadiol, and glycosidating the monosubstituted protopanaxadiol with glucopyranosyl donor in the presence of Lewis acid catalyst, deprotecting the product, then separating and purifying to obtain 20(S)-ginsenoside Rh2.
IT 873850-49-8P 873850-51-2P 873850-53-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)
(synthesis of 20(S)-ginsenoside Rh2)
RN 873850-49-8 HCAPLUS
CN β -D-Glucopyranoside, (3 β ,12 β)-20-hydroxy-12-[(4-methoxybenzoyl)oxy]dammar-24-en-3-yl, 2,3,4,6-tetrabenzoate (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

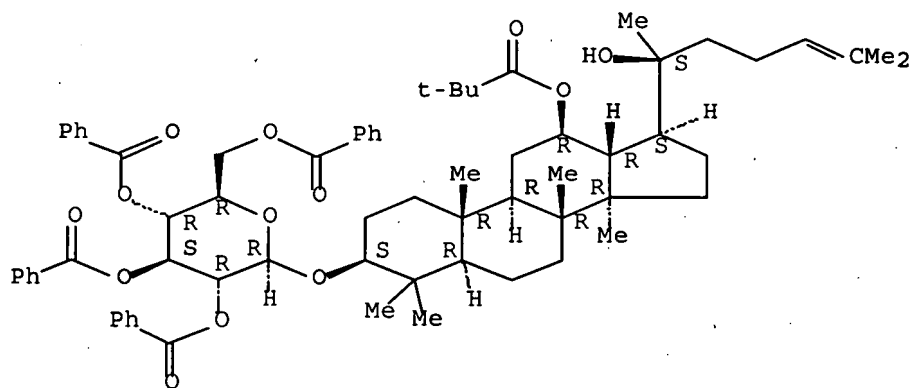


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RN 873850-51-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,12 β)-12-(2,2-dimethyl-1-oxopropoxy)-20-hydroxydammar-24-en-3-yl, 2,3,4,6-tetrabenzoate (9CI)
(CA INDEX NAME)

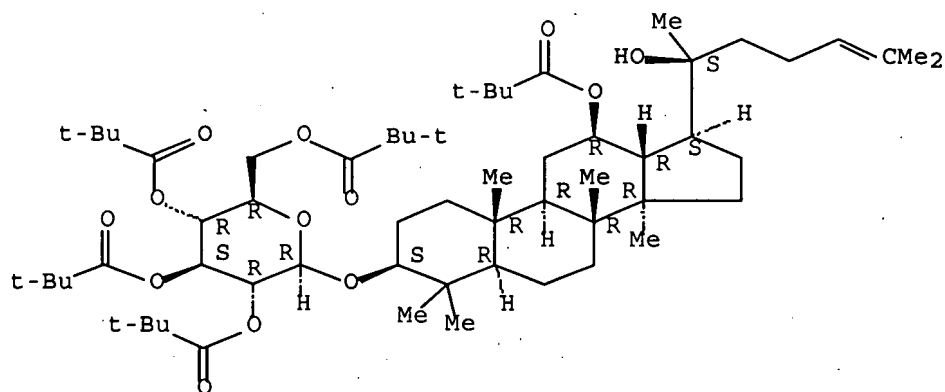
Absolute stereochemistry.



RN 873850-53-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,12 β)-12-(2,2-dimethyl-1-oxopropoxy)-20-hydroxydammar-24-en-3-yl, 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:965267 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:395756
 TITLE: Synthesis of solanum glycosides via catalyzed glycosylation reaction
 INVENTOR(S): Shahid, Mohammed
 PATENT ASSIGNEE(S): Glycomed Sciences UK Limited, UK
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096830	A1	20041111	WO 2004-EP4629	20040430

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004234071	A1	20041111	AU 2004-234071	20040430
CA 2524131	A1	20041111	CA 2004-2524131	200404

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EP 1618122

A1

20060125

EP 2004-730531

200404

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
PL, SK, HR

JP 2006524664

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JP 2006-505349

200404

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PRIORITY APPLN. INFO.:

EP 2003-9725

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200304

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WO 2004-EP4629

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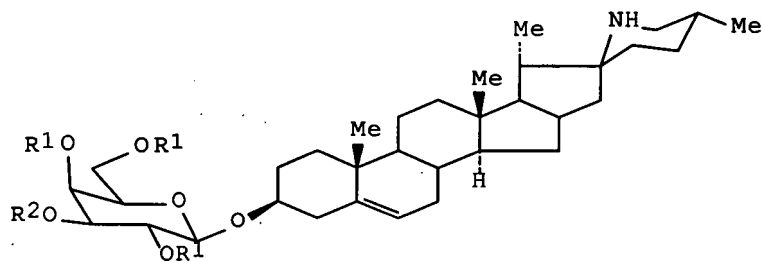
200404

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OTHER SOURCE(S): MARPAT 141:395756

ED Entered STN: 12 Nov 2004

GI



I

AB The present invention relates to the chemical synthesis of solanum glycosides, in particular to the synthesis of solasonine as well as to novel β -monosaccharide intermediate compds. I, where each R1 is the same or different and independently represents a benzylidene, 4-nitro-benzylidene or 4-methoxybenzylidene group and each R2 is the same or different and independently represents a benzoyl, acetyl or pivaloyl group. Thus, a method for the preparation of I (R1 = benzylidene, R2 = H) via catalyzed glycosylation reaction (no data), was claimed.

IT 790234-34-3P 790234-35-4P 790234-36-5P

790234-37-6P 790234-38-7P 790234-39-8P

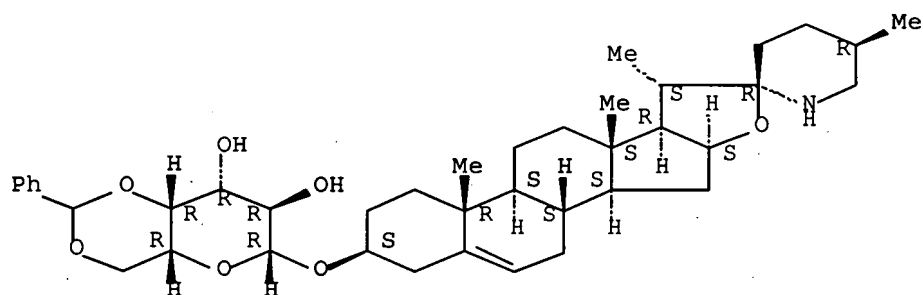
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(synthesis of solanum glycosides via catalyzed glycosylation reaction)

RN 790234-34-3 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 4,6-O-(phenylmethylene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

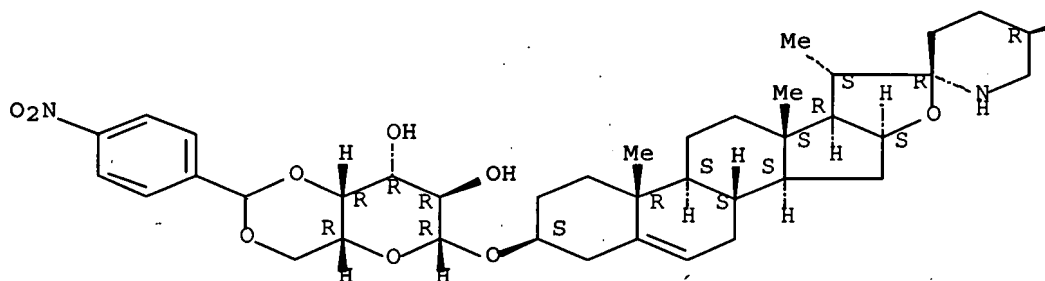


RN 790234-35-4 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 4,6-O-[(4-nitrophenyl)methylene]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 1-B

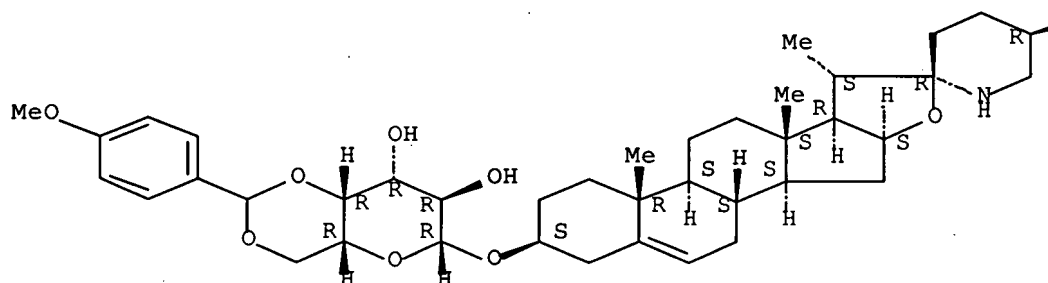


RN 790234-36-5 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 4,6-O-[(4-methoxyphenyl)methylene]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

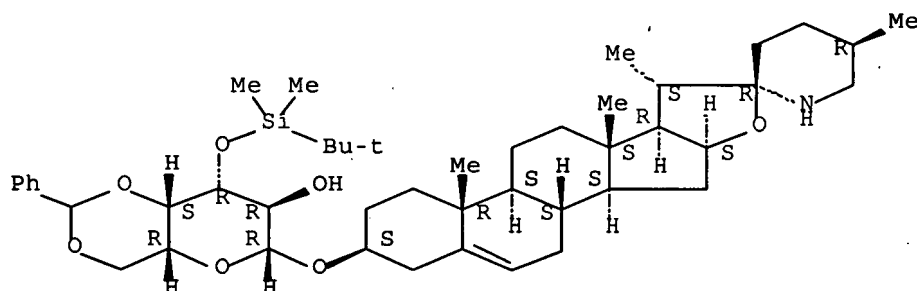




RN 790234-37-6 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 3-O-[(1,1-dimethylethyl)dimethylsilyl]-4,6-O-(phenylmethylene)-(9CI) (CA INDEX NAME)

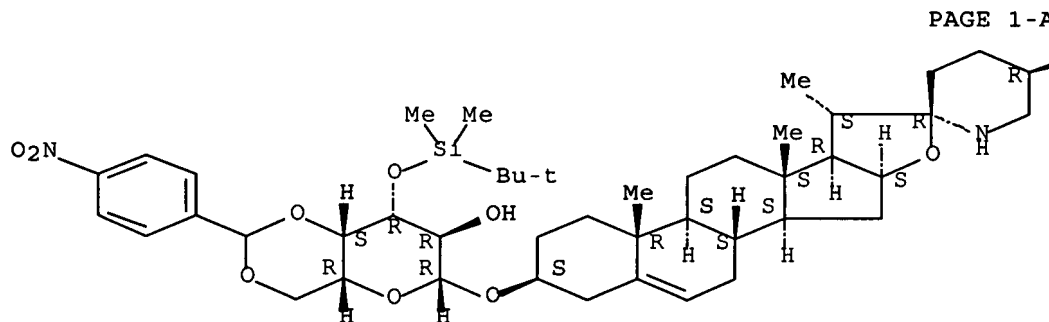
Absolute stereochemistry.



RN 790234-38-7 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 3-O-[(1,1-dimethylethyl)dimethylsilyl]-4,6-O-[(4-nitrophenyl)methylene]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-A



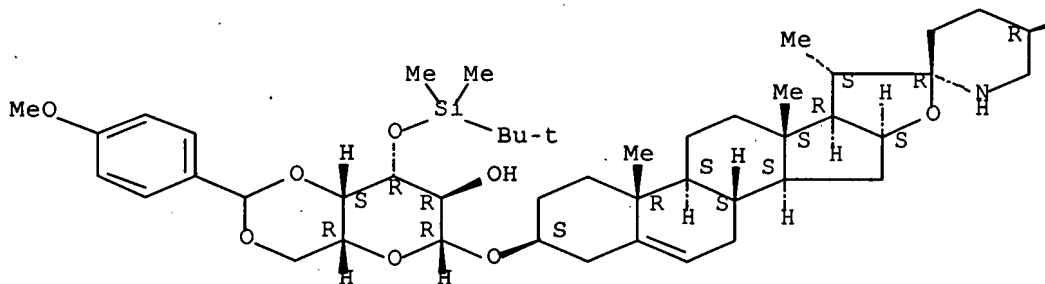
PAGE 1-B

RN 790234-39-8 HCAPLUS

CN β -D-Galactopyranoside, (3 β ,22 α ,25R)-spirosol-5-en-3-yl 3-O-[(1,1-dimethylethyl)dimethylsilyl]-4,6-O-[(4-

methoxyphenyl)methylene] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1 - B

L125 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:539572 HCAPLUS Full-text
DOCUMENT NUMBER: 141:243739
TITLE: Facile Synthesis of Saponins Containing
2,3-Branched Oligosaccharides by Using Partially
Protected Glycosyl Donors
AUTHOR(S): Gu, Guofeng; Du, Yuguo; Linhardt, Robert J.
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085,
Peop. Rep. China
SOURCE: Journal of Organic Chemistry (2004),
69(16), 5497-5500
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:243739
ED Entered STN: 07 Jul 2004
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Two natural saponins I and II, isolated from *Solanum indicum* L., and containing 2,3-branched sugar moieties, have been efficiently synthesized. Partially protected monosaccharide and disaccharide donors were used to facilitate target synthesis. Stereo factors were critical in incorporating 2,3-branched sugars on steroid aglycons. Saponin I was synthesized in five steps and 30% overall yield, while saponin II was obtained using six

10/563,743

straightforward sequential reactions in 31% overall yield. Saponin II shows promising cytotoxic activity toward human hepatocellular carcinoma BEL-7402 with an IC50 of <6 µg/mL.

IT 753004-03-4P

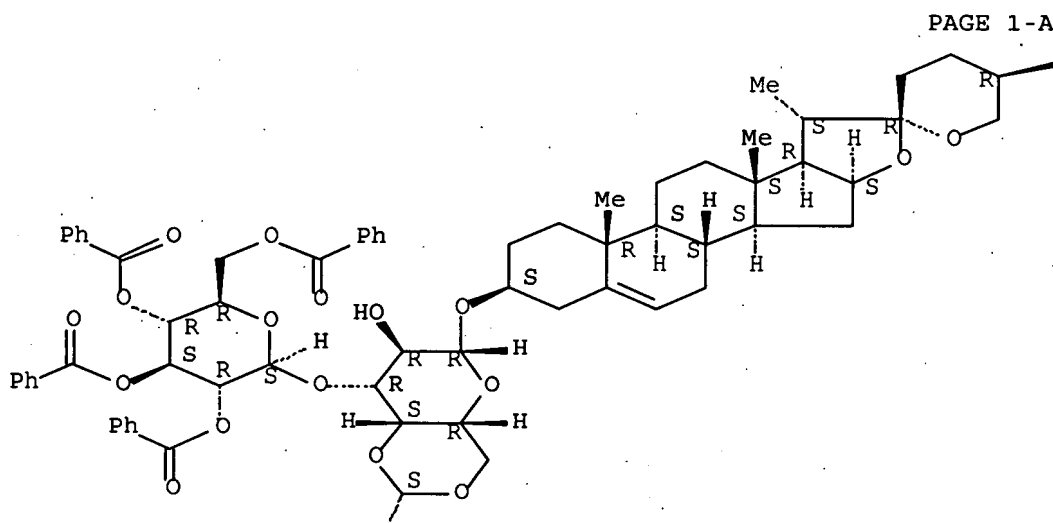
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)

(preparation of 2,3-branched oligosaccharide saponins and their evaluation as antitumor agents and cytotoxicity against human hepatocellular carcinoma BEL-7402)

RN 753004-03-4 HCAPLUS

CN β-D-Galactopyranoside, (3β,25R)-spirost-5-en-3-yl
4,6-O-[(S)-phenylmethylene]-3-O-(2,3,4,6-tetra-O-benzoyl-β-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 1-B

PAGE 2-A

REFERENCE COUNT:

39

THERE ARE 39 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L125 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:51746 HCAPLUS Full-text

DOCUMENT NUMBER: 140:287592

TITLE: Sugar conjugates of fulvestrant (ICI 182,780):

efficient general procedures for glycosylation of the fulvestrant core

AUTHOR(S): Thompson, Mark J.; Hutchinson, Edward J.; Stratford, Thomas H.; Bowler, Wayne B.; Blackburn, G. Michael

CORPORATE SOURCE: Krebs Institute, Department of Chemistry, University of Sheffield, Sheffield, S3 7HF, UK

SOURCE: Tetrahedron Letters (2004), 45(6), 1207-1210
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:287592

ED Entered STN: 22 Jan 2004

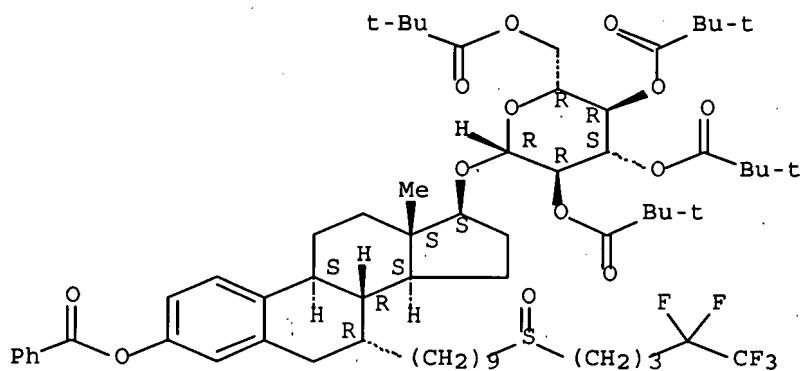
AB We have prepared glucose and cellobiose conjugates at the phenolic 3- and hydroxylic 17-positions of the pure anti-estrogenic compound fulvestrant (ICI 182,780), which has recently been approved in the USA for the treatment of advanced postmenopausal breast cancer. Glycosylation at the 17-position was achieved most effectively using pivaloyl protection of the sugar imidates employed, which we found suppressed the competing transacylation reaction and led to improved yields of the product glycosides.

IT 676144-17-5P 676144-19-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of glucose and cellobiose conjugates at the phenolic 3- and hydroxylic 17-positions of fulvestrant for use in the treatment of advanced postmenopausal breast cancer)

RN 676144-17-5 HCAPLUS

CN β -D-Glucopyranoside, (7 α ,17 β)-3-(benzoyloxy)-7-[9-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]nonyl]estra-1,3,5(10)-trien-17-yl, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

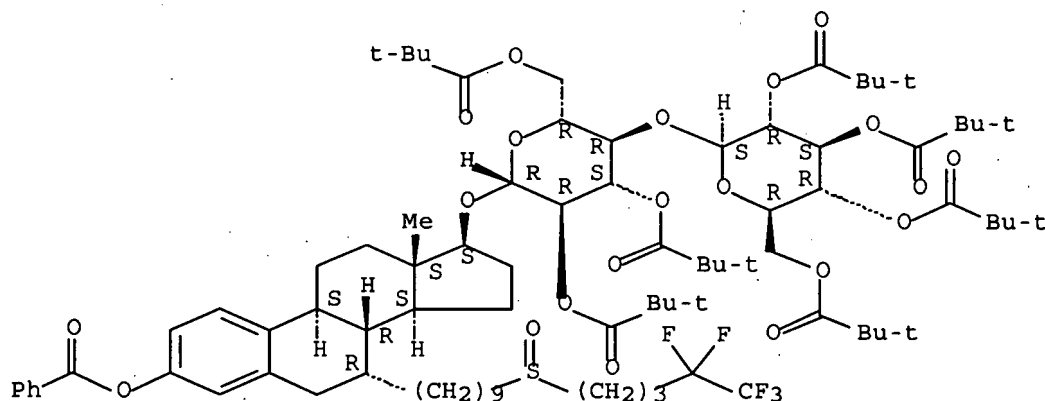
Absolute stereochemistry.



RN 676144-19-7 HCAPLUS

CN β -D-Glucopyranoside, (7 α ,17 β)-3-(benzoyloxy)-7-[9-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]nonyl]estra-1,3,5(10)-trien-17-yl 4-O-[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]-, tris(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:599238 HCAPLUS Full-text

DOCUMENT NUMBER: 139:277093

TITLE: N-glycosyl amides: Removal of the anomeric protecting group and conversion into glycosyl donors

AUTHOR(S): Pleuss, Norbert; Kunz, Horst

CORPORATE SOURCE: Institut fuer Organische Chemie Universitaet Mainz, Mainz, 55128, Germany

SOURCE: Angewandte Chemie, International Edition (2003), 42(27), 3174-3176

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:277093

ED Entered STN: 05 Aug 2003

AB The authors describe a mild method for the cleavage of N-glycosyl amides as anomeric protecting groups and their activation as glycosyl donors. The starting N-glycosyl amides undergo a retro-Ritter reaction using Appel reagent, triphenylphosphane/tetrabromomethane, to give the O-glycoside. The electronic features of the amide substituent have a significant effect on this reaction, as is evidenced by the yields of the stereoselective glycosylation of galactosyl acetamide and galactosyl anisoyle amide with alcohols and amines. Good yields are obtained from the galactosyl anisoyle amide (as opposed to moderate yields from the acetamide derivative) due to the higher electron density at the carbonyl oxygen.

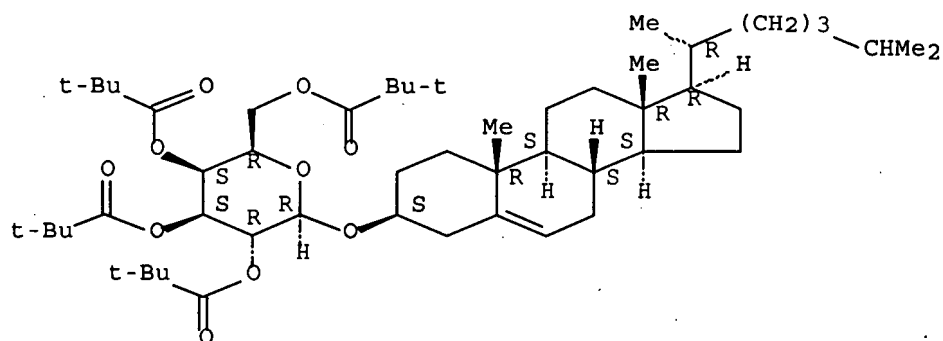
IT 606929-55-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(cleavage of N-glycosyl amides as anomeric protecting groups and their activation as glycosyl donors via retro-Ritter reaction using the Appel reagent)

RN 606929-55-9 HCAPLUS

CN β -D-Galactopyranoside, (3 β)-cholest-5-en-3-yl, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:177312 HCAPLUS Full-text

DOCUMENT NUMBER: 134:353451

TITLE: Glycosyl trifluoroacetimidates. Part 1: Preparation and application as new glycosyl donors

AUTHOR(S): Yu, B.; Tao, H.

CORPORATE SOURCE: Shanghai Institute of Organic Chemistry, State Key Laboratory of Bio-Organic and Natural Products Chemistry, Chinese Academy of Sciences, Shanghai, 200032, Peop. Rep. China

SOURCE: Tetrahedron Letters (2001), 42(12), 2405-2407

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:353451

ED Entered STN: 15 Mar 2001

AB Glycosyl (N-phenyl)trifluoroacetimidates, readily prepared from 1-hydroxyl sugars by treatment with (N-phenyl)trifluoroacetimidoyl chloride in the presence of K₂CO₃, were demonstrated to be effective glycosyl donors. Glycosidation of these glycosyl fluoroacetimidates with alcs. is also reported.

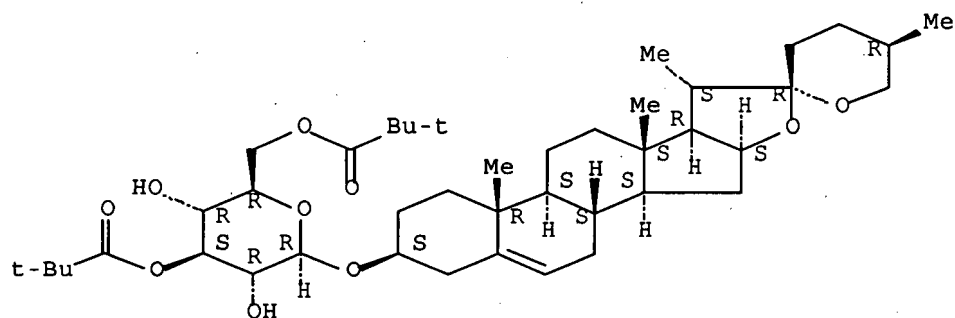
IT 335591-63-4P 335591-71-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn and glycosidation of glycosyl trifluoroacetimidates in synthesis of glycosides)

RN 335591-63-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl, 3,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

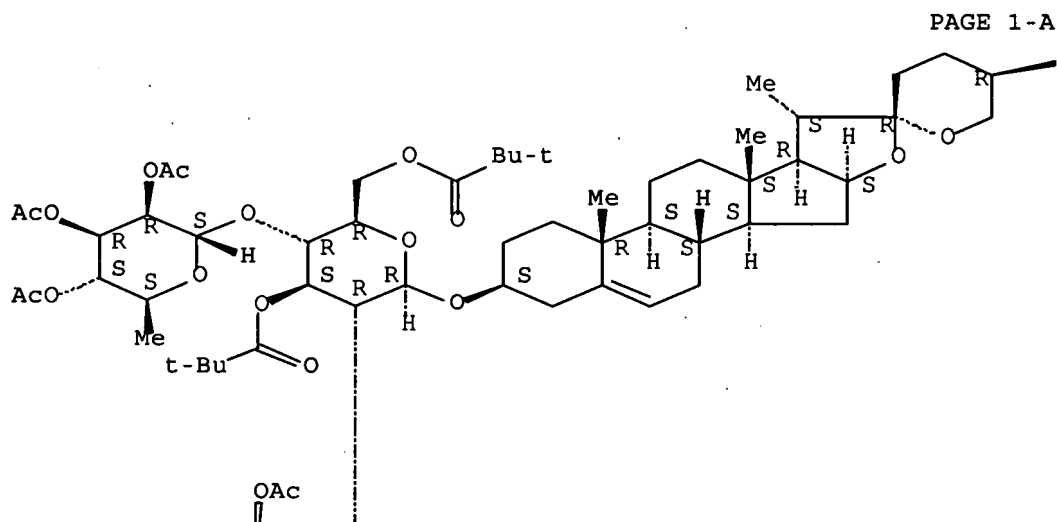
Absolute stereochemistry.



RN 335591-71-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl
 O-2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-
 [2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 4)]-,
 bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

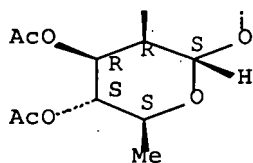
Absolute stereochemistry. Rotation (-).



PAGE 1-B

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PAGE 2-A



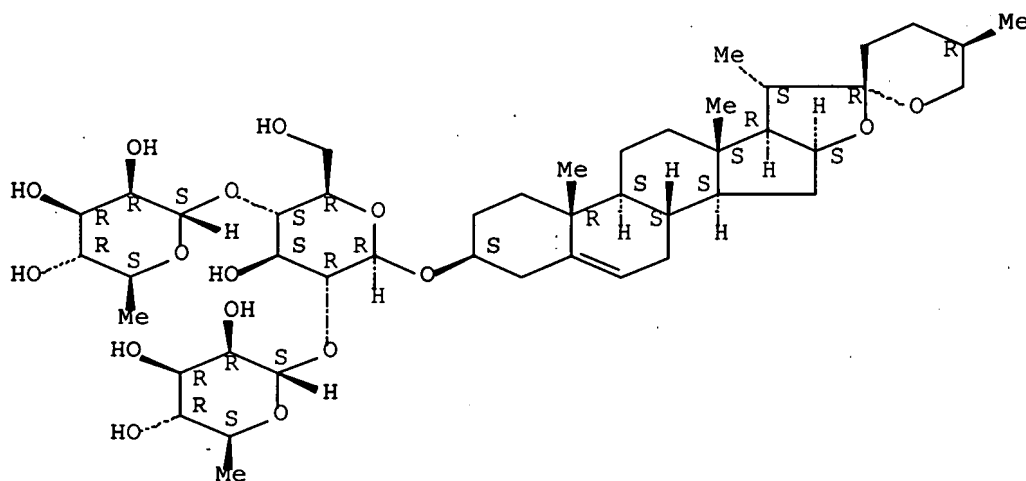
IT 19057-60-4P, Dioscin 66252-72-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn and glycosidation of glycosyl trifluoroacetimidates in
synthesis of glycosides)

RN 19057-60-4 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,25R)-spirost-5-en-3-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-[6-deoxy- α -L-
mannopyranosyl-(1 \rightarrow 4)]- (CA INDEX NAME)

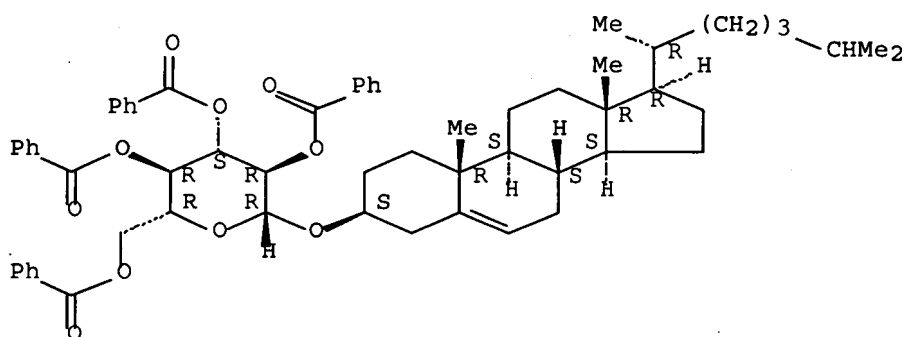
Absolute stereochemistry.



RN 66252-72-0 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl, tetrabenzoate
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L125 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:492135 HCAPLUS Full-text

DOCUMENT NUMBER: 131:214475
 TITLE: Stereospecific α -D-mannosylation
 AUTHOR(S): Scott, Ian L.; Market, Robert V.; DeOrazio, Russell J.; Meckler, Harold; Kogan, Timothy P.
 CORPORATE SOURCE: Texas Biotechnology Corporation, Houston, TX, 77030, USA
 SOURCE: Carbohydrate Research (1999), 317(1-4), 210-216
 CODEN: CRBRAT; ISSN: 0008-6215
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 131:214475
 ED Entered STN: 10 Aug 1999

AB The stereospecific formation of α -D-mannosyl glycosidic linkages has been achieved in high yield using tetra-O-pivaloyl- α -D-mannopyranosyl fluoride and boron trifluoride di-Et etherate in dichloromethane. Examples of the α -D-mannosylation of primary, secondary, benzylic and phenolic hydroxyl groups are described.

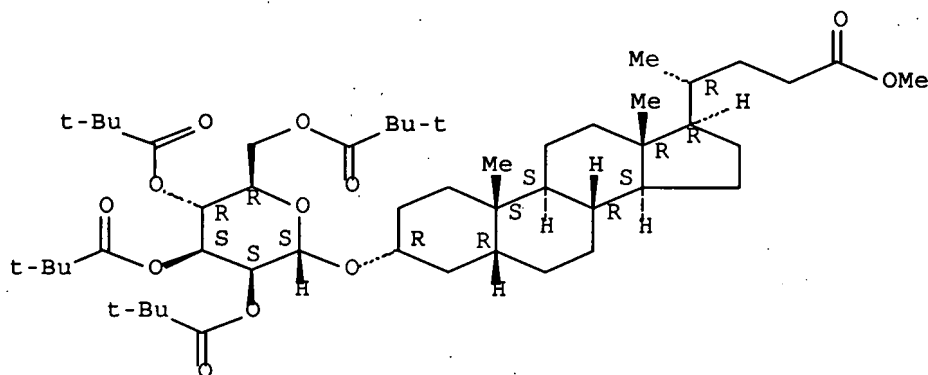
IT 243120-95-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (stereospecific mannosylation)

RN 243120-95-8 HCAPLUS

CN Cholan-24-oic acid, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- α -D-mannopyranosyl]oxy]-, methyl ester, (3 α ,5 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:454915 HCAPLUS Full-text

DOCUMENT NUMBER: 129:189553

TITLE: Direct chemical synthesis of β -mannopyranosides and other glycosides via glycosyl triflates

AUTHOR(S): Crich, David; Sun, Sanxing

CORPORATE SOURCE: Department of Chemistry, University of Illinois at Chicago, Chicago, IL, 60607-7061, USA

SOURCE: Tetrahedron (1998), 54(29), 8321-8348
 CODEN: TETRAB; ISSN: 0040-4020
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 22 Jul 1998

AB High yield, highly stereoselective methods for the synthesis of β -mannopyranosides of primary, secondary, and tertiary alcs. are presented. Activation of mannosyl sulfoxides or mannosyl thioglycosides with trifluoromethanesulfonic anhydride or benzenesulfonyl triflate, resp., leads to the efficient formation of α -mannosyl triflates at -78°C in dichloromethane, in the presence of 2,6-di-tert-butyl-4-methylpyridine. These triflates then react $\text{S}_\text{N}2$ -like with alcs. to give the β -mannosides. The use of a 4,6-O-benzylidene protected mannose is required for high selectivity, as is the use of non-participating protecting groups on O-2 and O-3 of the donors. It is further demonstrated that the thioglycoside/benzenesulfonyl triflate activation is applicable in the glucoside series, when both armed and disarmed protecting groups are tolerated.

IT 122700-45-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

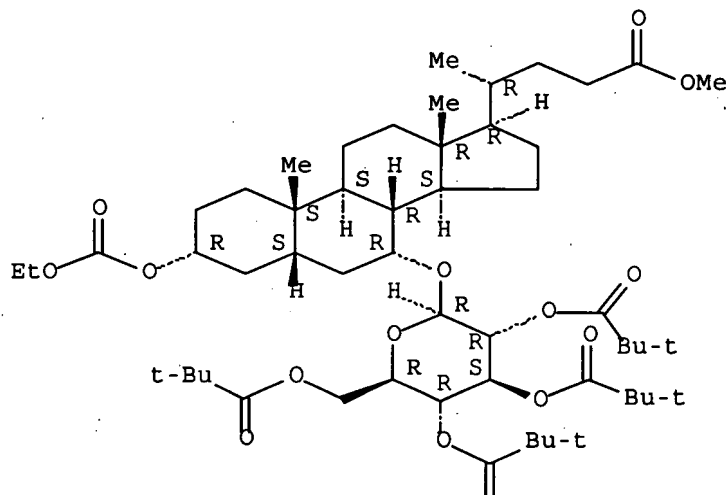
(direct chemical synthesis of β -mannopyranosides and other glycosides via glycosyl triflates in a stereo-selective manner)

RN 122700-45-2 HCAPLUS

CN Cholan-24-oic acid, 3-[(ethoxycarbonyl)oxy]-7-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, methyl ester, (3 α ,5 β ,7 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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PAGE 2-A

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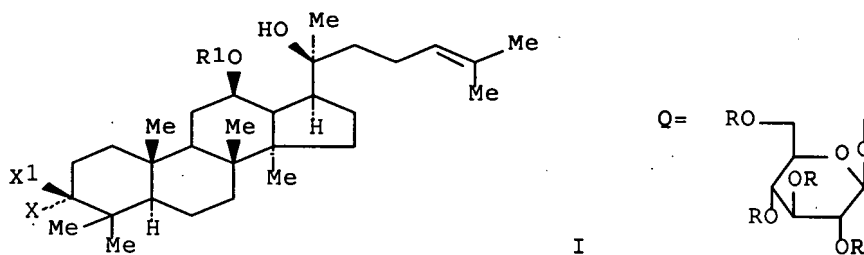
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L125 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:630313 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:276432
 TITLE: Method for producing ginsenoside Rh2
 INVENTOR(S): Aeba, Keizo; Ookawa, Naoshi; Ogawa, Noryuki;
 Goto, Tomohiro
 PATENT ASSIGNEE(S): Neos Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08208688	A	19960813	JP 1994-309644	19941118
JP 3535588	B2	20040607	JP 1994-309644	19941118

PRIORITY APPLN. INFO.: <--

OTHER SOURCE(S): CASREACT 125:276432; MARPAT 125:276432
 ED Entered STN: 25 Oct 1996
 GI



AB Ginsenoside Rh2 (I; X = R1 = H, X1 = Q, wherein R = H), which is known to have potent antitumor activity and is useful as anticancer agent, is prepared Thus, 30.0 mg betulafolienetriol was reduced by 26.6 mg aluminum triisopropoxide and 280 mg 3-pentanone in toluene under reflux for 2 h to give 89% 3-oxobetulafolienetriol I (XX1 = O, R1 = H) with 99% selectivity, which was acetylated by Ac2O in pyridine at 50° for 5 h to give 94% 12-acetyl-3-oxobetulafolienetriol I (XX1 = O, R1 = Ac). The latter compound (227.3 mg) was reduced by NaBH4 in aqueous THF at room temperature for 2 h to give 90% 12-acetylprotopanaxadiol I (X = H, X1 = OH, R1 = Ac). This compound (205.9 mg) was stirred at room temperature for 12 h with 711.9 mg α-D-glucopyranosyl bromide tetrapivalate in dark in the presence of 284.8 mg silver oxide and 1.00 g CaSO4, in which silver oxide and CaSO4 were further added to the reaction mixture at 94.9 mg and 0.50 g, resp., every 4 h. The reaction

mixture was filtered and purified using silica gel column chromatog. and ODS-reversed phase column chromatog. to give 89% 12-acetylginsenoside Rh2-tetrapivalate I (X = H, X1 = Q, wherein R = pivaloyl, R1 = Ac), which was refluxed with NaOMe in MeOH for 2 h, cooled, treated with dilute aqueous NaOH, stirred at 0° for 2 h, and left to stand at room temperature for 1 day to give, after filtering off the precipitated solid, drying, and recrystn. from 70% aqueous MeOH, 89% ginsenoside Rh2 (52% total yield from betulafolienetriol).

IT 182281-76-1P

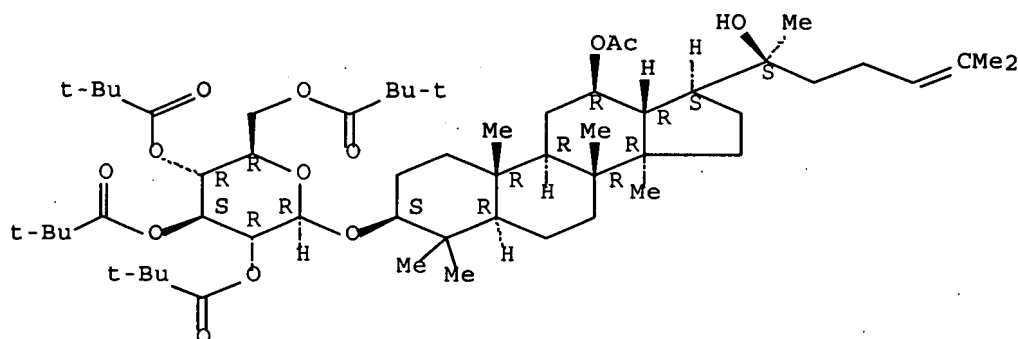
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of ginsenoside Rh2 via reduction of betulafolienetriol of protopanaxadiol with aluminum triisopropoxide and ketone)

RN 182281-76-1 HCAPLUS

CN β -D-Glucopyranoside, (3 β ,12 β)-12-(acetyloxy)-20-hydroxydammar-24-en-3-yl, 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:234033 HCAPLUS Full-text

DOCUMENT NUMBER: 125:33964

TITLE: O-Glycoside synthesis under neutral conditions in concentrated solutions of LiClO₄ in organic solvents employing O-acyl-protected glycosyl donors

AUTHOR(S): Boehm, Gerd; Waldmann, Herbert

CORPORATE SOURCE: Inst. Organische Chemie, Univ. Karlsruhe, Karlsruhe, D-76128, Germany

SOURCE: Liebigs Annalen (1996), (4), 621-5

CODEN: LANAEM; ISSN: 0947-3440

PUBLISHER: VCH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:33964

ED Entered STN: 20 Apr 1996

GI

IT 81058-30-2P

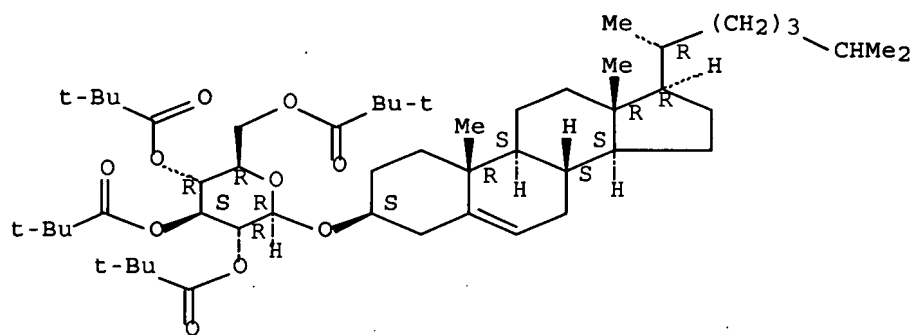
(preparation of O-glycosides under neutral conditions in concentrated

LiClO4 solns. with O-acyl-protected glycosyl donors)

CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl,

2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 1995:579297 HCAPLUS Full-text

DOCUMENT NUMBER: 123:257149

TITLE: Synthesis of O-glycosides under neutral conditions in concentrated LiClO₄ solutions in organic solvents

AUTHOR(S) : Waldmann, Herbert; Boehm, Gerd; Schmid, Uschi;
Roettele, Herbert

CORPORATE SOURCE: Inst. Organ. Chem., Univ. Richard-Willstaetter-Allee, Karlsruhe, D-76128, Germany

SOURCE: Angewandte Chemie (1994), 106(19),
2024-5, (See also Angew. Chem., Int. Ed. Engl.,
1994, 33(19), 1994-6)

10/563,743

CODEN: ANCEAD; ISSN: 0044-8249

PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 123:257149

ED Entered STN: 31 May 1995

AB Glycosidation of protected pyranosyl halides was carried out in the presence of lithium perchlorate. In addition to glycosides of simple alcs., glycosides of steroids and sugars could be obtained under mild conditions. Glycosidation of 2,3,4,6-tetrakis-O-(phenylmethyl)- α -D-glucopyranose diphenylphosphate with cholesterol (lithium perchlorate in methylene chloride) gave (3 β)-cholest-5-en-3-yl 2,3,4,6-tetrakis-O-(phenylmethyl)- α -D-glucopyranoside and (3 β)-cholest-5-en-3-yl 2,3,4,6-tetrakis-O-(phenylmethyl)- β -D-glucopyranoside in a 1:2 anomeric ratio.

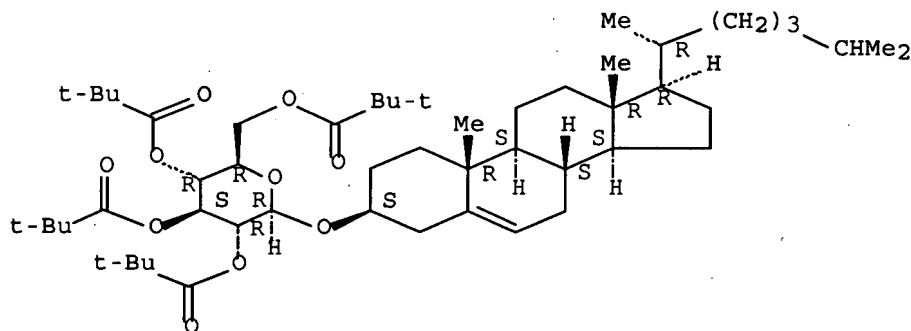
IT 81058-30-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(glycoside synthesis under neutral conditions in presence of lithium perchlorate)

RN 81058-30-2 HCAPLUS

CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl,
2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:612821 HCAPLUS Full-text

DOCUMENT NUMBER: 117:212821

TITLE: A novel synthesis of protected glucose intermediates

AUTHOR(S): Becker, D.; Galili, N.

CORPORATE SOURCE: Dep. Chem., Technion-Israel Inst. Technol.,
Haifa, 32000, Israel

SOURCE: Tetrahedron Letters (1992), 33(33),
4775-8

CODEN: TELEAY; ISSN: 0040-4039

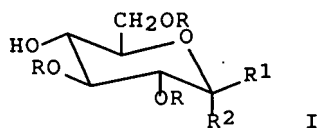
DOCUMENT TYPE: Journal

LANGUAGE: English

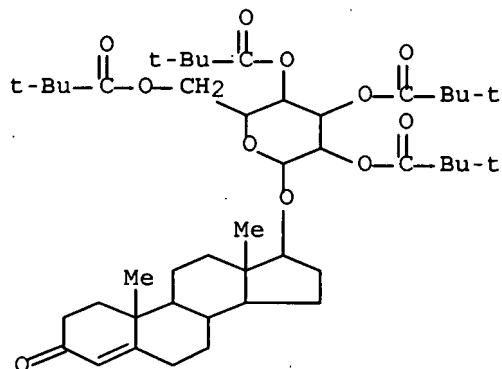
OTHER SOURCE(S): CASREACT 117:212821

ED Entered STN: 28 Nov 1992

GI

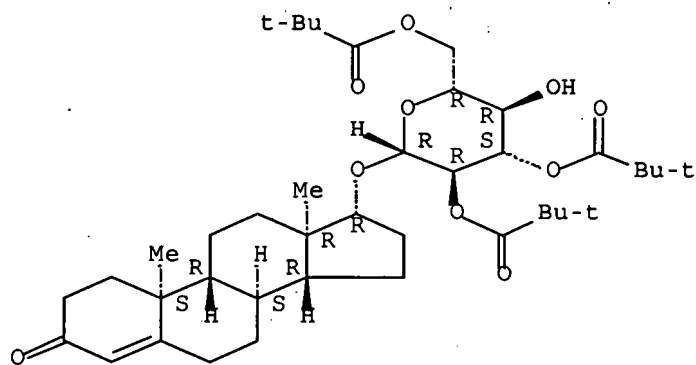


- AB Tetra-O-pivaloyl- β -D-glucopyranoses, e.g. I (R = pivaloyl, R1 = OR, R2 = H) (II), have been prepared in one step from anhydrous glucose and pivaloyl chloride. These new intermediates can be converted into the corresponding esters, or used in the synthesis of a disaccharide in good yield. Thus, I (R1R2 = H, OH) can be prepared from II, and use for preparation of β -gluco derivs. via the corresponding trichloroacetimidate I [R1 = H, R2 = C(NH)CCl₃].
- IT 100083-85-0P 144102-47-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation and hydrolysis of)
- RN 100083-85-0 HCAPLUS
- CN Androst-4-en-3-one, 17-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, (17 β)- (9CI) (CA INDEX NAME)

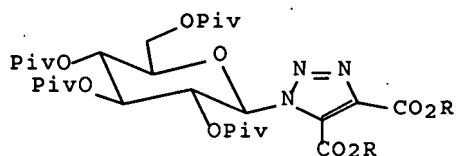


- RN 144102-47-6 HCAPLUS
- CN Androst-4-en-3-one, 17-[[2,3,6-tris-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, (17 β)- (9CI) (CA INDEX NAME)

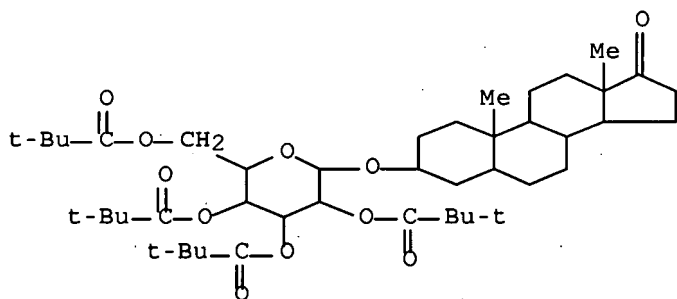
Absolute stereochemistry.



L125 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN.
 ACCESSION NUMBER: 1991:62529 HCAPLUS Full-text
 DOCUMENT NUMBER: 114:62529
 TITLE: Glycoside and saccharide synthesis using
 N-glycosyltriazaoles as hydrolytically stable
 glycosyl donors
 AUTHOR(S): Broeder, Wolfgang; Kunz, Horst
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500,
 Germany
 SOURCE: Synlett (1990), (5), 251-2
 CODEN: SYNLES; ISSN: 0936-5214
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 114:62529
 ED Entered STN: 23 Feb 1991
 GI

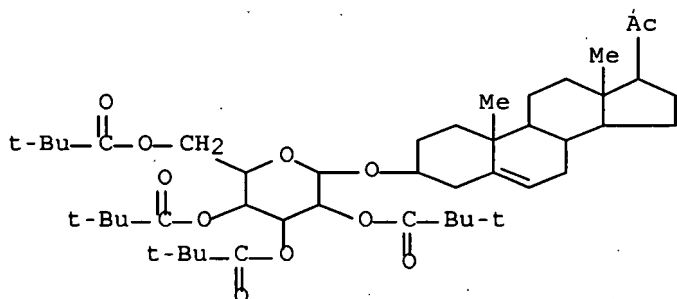


AB Tetra-O-pivaloyl- β -D-glucopyranosyl azide was treated with $\text{R}_2\text{C}=\text{C}(\text{CO}_2\text{R})$ ($\text{R} = \text{Me}, \text{Me}_2\text{CH}, \text{Me}_3\text{C}$) to give N-glucosyltriazaoles I. I ($\text{R} = \text{Me}_3\text{C}$) (II) was the most effective glucosyl donor when the glucosylation was carried out with 2 equivalent $\text{Me}_3\text{SiO}_3\text{SCF}_3$ in CH_2Cl_2 at 20° in the presence of 4 Å mol. sieve. Steroid β -glucosides, disaccharides and an O- β -glucosylserine derivative were prepared using II.
 IT 100083-80-5P 100083-81-6P 100083-85-0P
 131603-25-3P 131603-26-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, N-(tetra-O-pivaloylglucopyranosyl)triazoledicarboxyla
 te as glucosyl donor in)
 RN 100083-80-5 HCAPLUS
 CN Androstan-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-
 β -D-glucopyranosyl]oxy]-, (3 α ,5 α)-(9CI) (CA INDEX
 NAME)



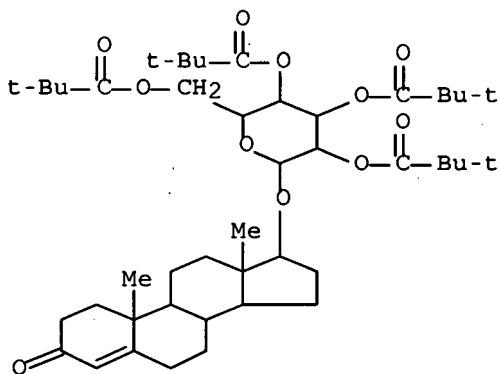
RN 100083-81-6 HCAPLUS

CN Pregn-5-en-20-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (3β)- (9CI) (CA INDEX NAME)



RN 100083-85-0 HCAPLUS

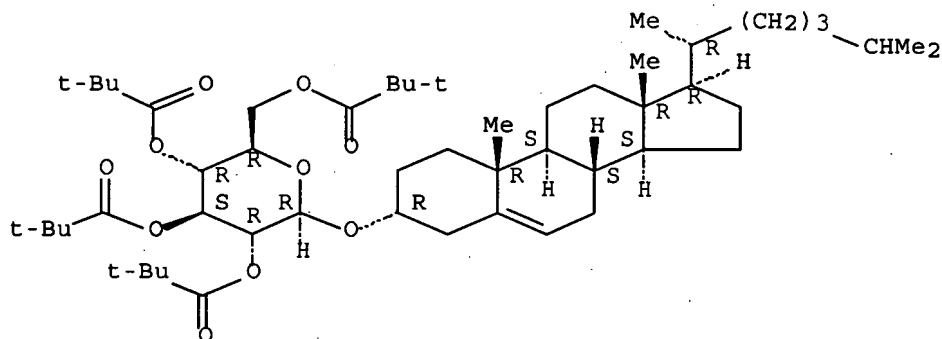
CN Androst-4-en-3-one, 17-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (17β)- (9CI) (CA INDEX NAME)



RN 131603-25-3 HCAPLUS

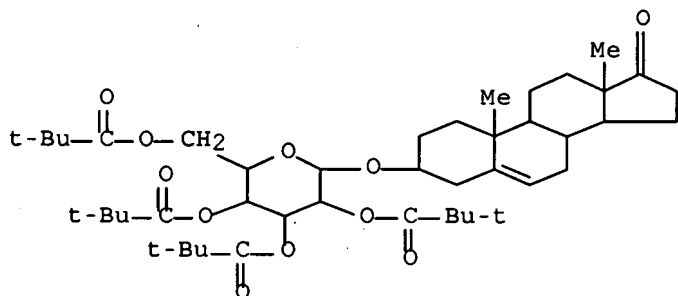
CN β-D-Glucopyranoside, (3α)-cholest-5-en-3-yl, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 131603-26-4 HCAPLUS

CN Androst-5-en-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (3α)-(9CI) (CA
INDEX NAME)



L125 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:554251 HCAPLUS Full-text

DOCUMENT NUMBER: 111:154251

TITLE: Glycosylation of unreactive substrates

AUTHOR(S): Kahne, Daniel; Walker, Suzanne; Cheng, Yuan; Van Engen, Donna

CORPORATE SOURCE: Dep. Chem., Princeton Univ., Princeton, NJ, 08544, USA

SOURCE: Journal of the American Chemical Society (1989), 111(17), 6881-2

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 111:154251

ED Entered STN: 28 Oct 1989

AB A rapid method to glycosylate unreactive substrates in good yield involves activation of an anomeric Ph sulfoxide with triflic anhydride followed by trapping of a nucleophile. The efficacy of the reaction is demonstrated by glycosylation of an amide on nitrogen. This is the first report of direct glycosylation of an amide nitrogen by non-enzymic means. Other nucleophiles trapped include hindered alcs. and derivs. of phenol. In many cases, either

the α or the β isomer of the glycosylated product can be obtained stereoselectively. Crystal structure of chenodeoxycholic acid glycopyranoside was determined

IT 122700-45-2P

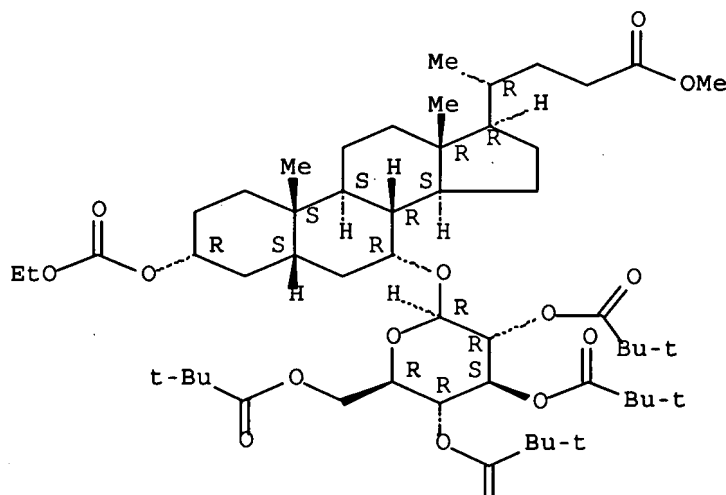
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 122700-45-2 HCAPLUS

CN Cholan-24-oic acid, 3-[(ethoxycarbonyl)oxy]-7-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, methyl ester, (3 α ,5 β ,7 α)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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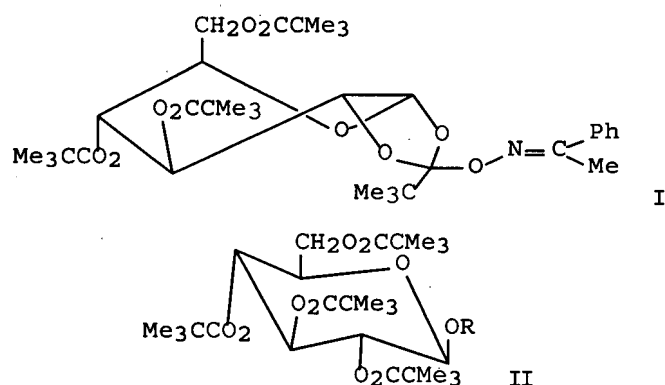


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L125 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:534261 HCAPLUS Full-text
 DOCUMENT NUMBER: 105:134261
 TITLE: Effective 1,2-trans-glycosylation of complex alcohols and phenols using the oximate orthoester of O-pivaloylglucopyranose
 AUTHOR(S): Kunz, Horst; Pfrengle, Waldemar
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Fed. Rep. Ger.
 SOURCE: Journal of the Chemical Society, Chemical Communications (1986), (9), 713-14
 CODEN: JCCCCAT; ISSN: 0022-4936
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 105:134261
 ED Entered STN: 18 Oct 1986

GI



AB Steroidal alcs. were selectively β -glycosylated in high yields by the glycosyl donor I in the presence of $\text{BF}_3 \cdot \text{Et}_2\text{O}$. E.g., treatment of cholesterol with I in CH_2Cl_2 containing $\text{BF}_3 \cdot \text{Et}_2\text{O}$ at room temperature for 5-30 min gave 82% of the glycoside II (R = cholesteryl).

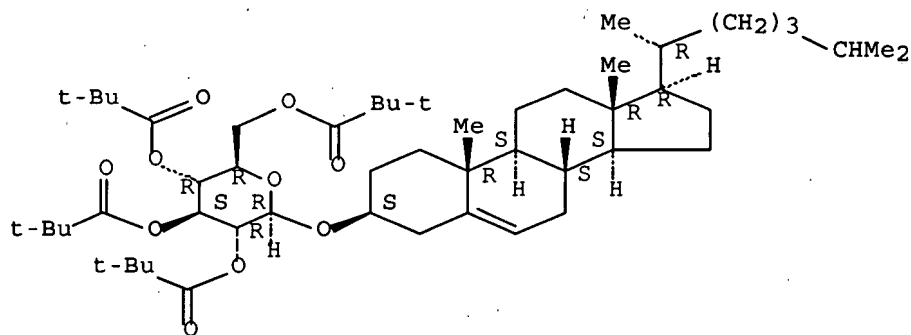
IT 81058-30-2P 100083-80-5P 100083-85-0P
100083-87-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 81058-30-2 HCAPLUS

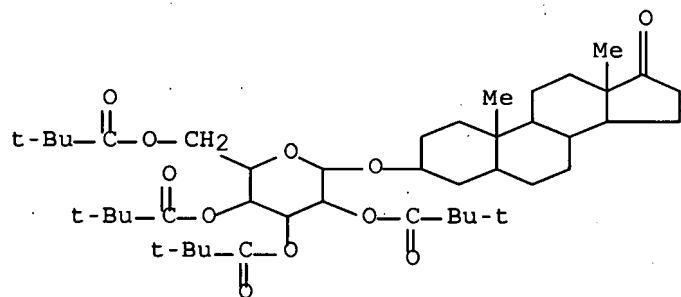
CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl,
2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



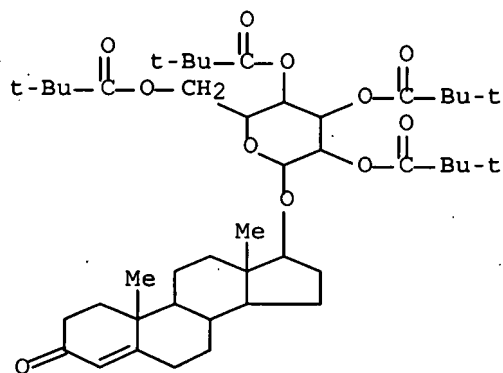
RN 100083-80-5 HCAPLUS

CN Androstan-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, (3 α ,5 α)-(9CI) (CA INDEX NAME)



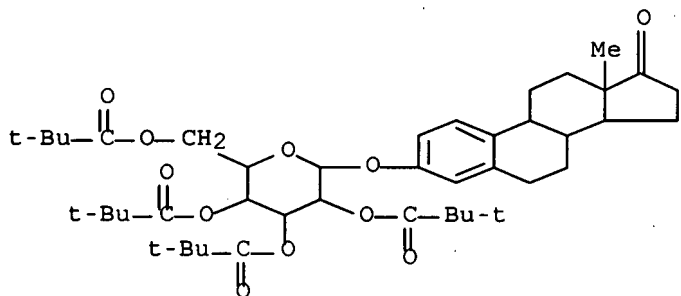
RN 100083-85-0 HCAPLUS

CN Androst-4-en-3-one, 17-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (17β) - (9CI) (CA INDEX NAME)



RN 100083-87-2 HCAPLUS

CN Estr-1,3,5(10)-trien-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)



L125 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:225115 HCAPLUS Full-text

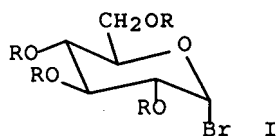
DOCUMENT NUMBER: 104:225115

TITLE: Stereoselective glycosylation of steroid

10/563,743

alcohols using 2,3,4,6-tetra-O-pivaloyl- α -D-glucopyranosyl bromide (pivalobromoglucose) and 2,3,4,6-tetra-O-(o-toluoyl)- α -D-glucopyranosyl bromide

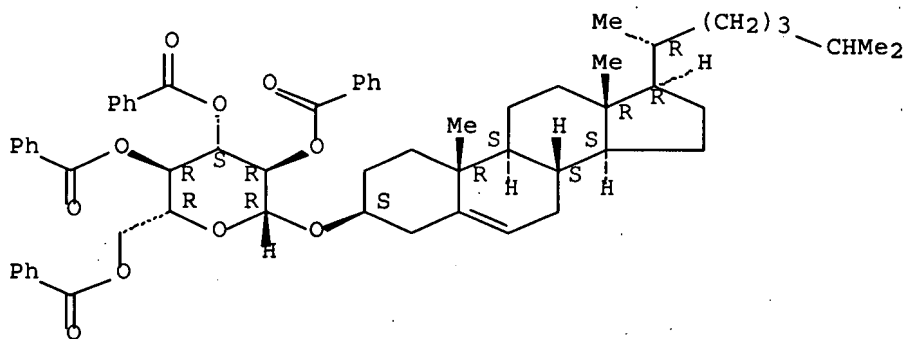
AUTHOR(S): Harreus, Albrecht; Kunz, Horst
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Fed. Rep. Ger.
 SOURCE: Liebigs Annalen der Chemie (1986), (4), 717-30
 CODEN: LACHDL; ISSN: 0170-2041
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 104:225115
 ED Entered STN: 27 Jun 1986
 GI



AB Steroid alcs. with OH groups of different reactivities and containing addnl. sensitive substituents were effectively and selectively converted to their β -glucosides by using the glucopyranosyl bromide I (R = COCMe₃). The formation of ortho esters was suppressed by the pivaloyl protective group. I (R = COC₆H₄Me-2) showed little selectivity.

IT 66252-72-0P 81058-30-2P 100083-80-5P
 100083-81-6P 100083-82-7P 100083-83-8P
 100083-85-0P 100083-87-2P 100083-88-3P
 100083-92-9P 100102-42-9P 100102-43-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 66252-72-0 HCAPLUS
 CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl, tetrabenzoate
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

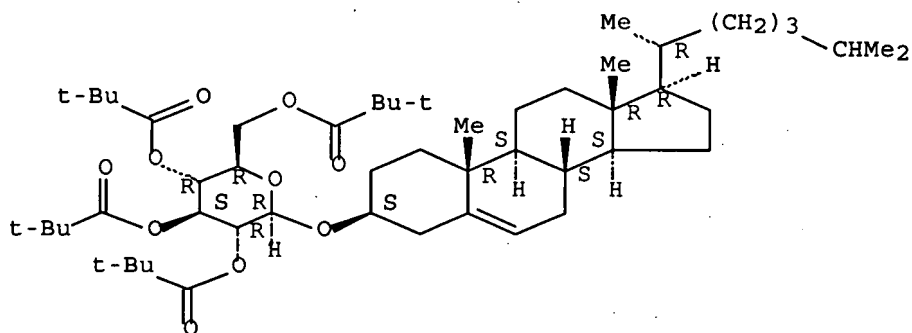


RN 81058-30-2 HCAPLUS

10/563,743

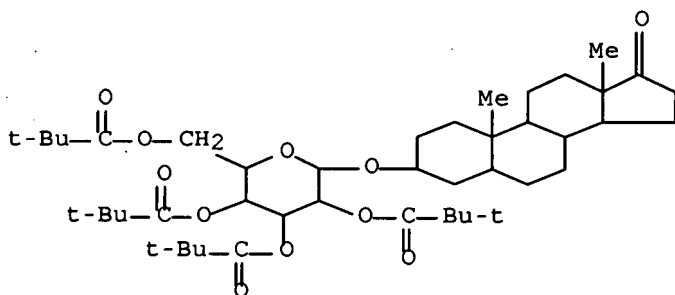
CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl,
2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



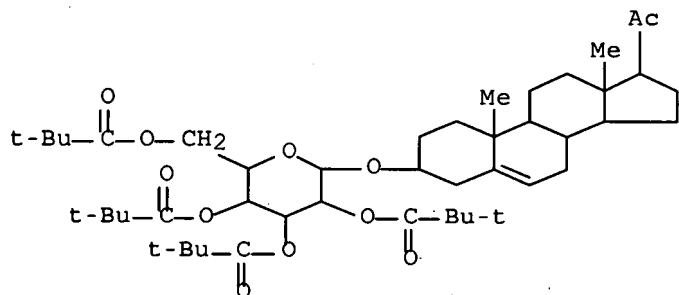
RN 100083-80-5 HCAPLUS

CN Androstan-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, (3 α ,5 α)- (9CI) (CA INDEX NAME)



RN 100083-81-6 HCAPLUS

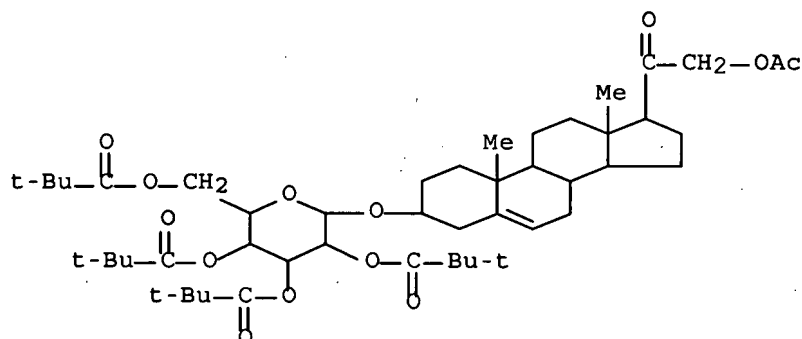
CN Pregn-5-en-20-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]-, (3 β)- (9CI) (CA INDEX NAME)



RN 100083-82-7 HCAPLUS

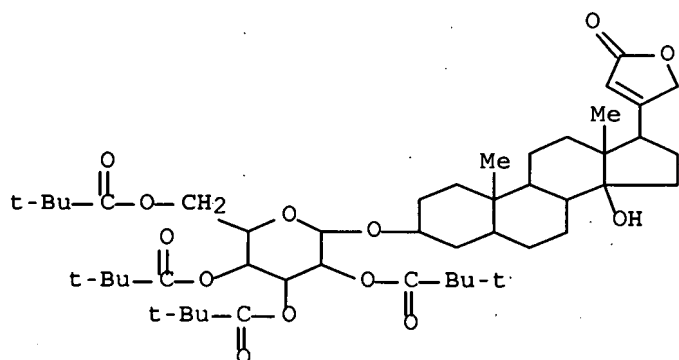
10/563,743

CN Pregn-5-en-20-one, 21-(acetyloxy)-3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (3β)-(9CI) (CA INDEX NAME)



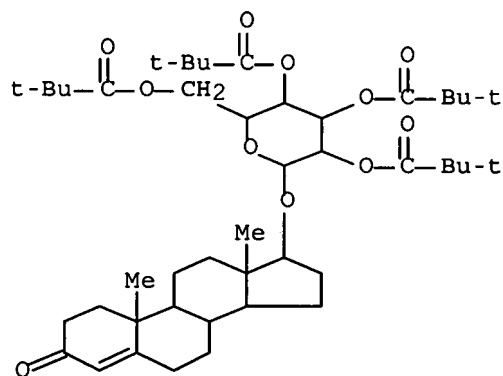
RN 100083-83-8 HCAPLUS

CN Card-20(22)-enolide, 14-hydroxy-3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (3β,5β)-(9CI) (CA INDEX NAME)



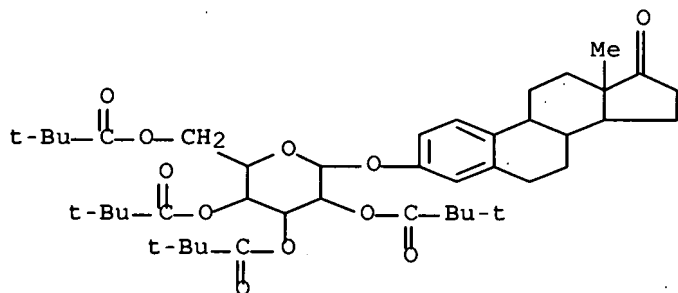
RN 100083-85-0 HCAPLUS

CN Androst-4-en-3-one, 17-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (17β)-(9CI) (CA INDEX NAME)



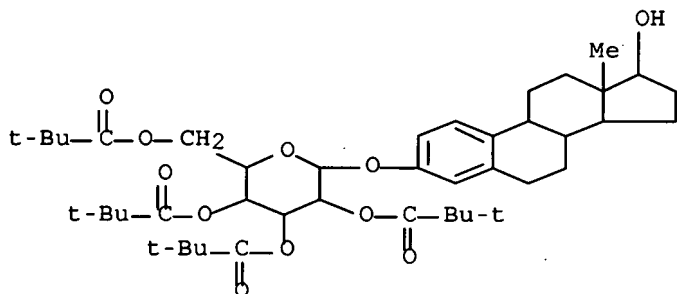
RN 100083-87-2 HCAPLUS

CN Estradiol 3-O-(2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl)-17-one (9CI) (CA INDEX NAME)



RN 100083-88-3 HCAPLUS

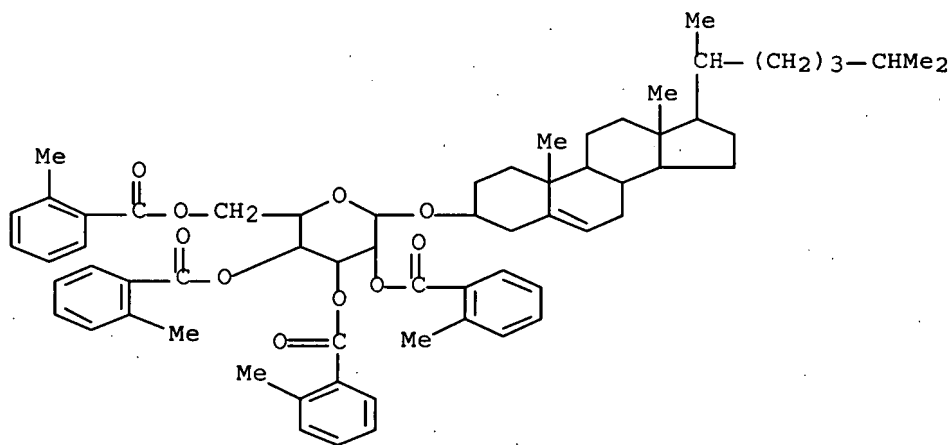
CN β-D-Glucopyranoside, (17β)-17-hydroxyestra-1,3,5(10)-trien-3-yl, 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)



RN 100083-92-9 HCAPLUS

CN β-D-Glucopyranoside, (3β)-cholest-5-en-3-yl, tetrakis(2-methylbenzoate) (9CI) (CA INDEX NAME)

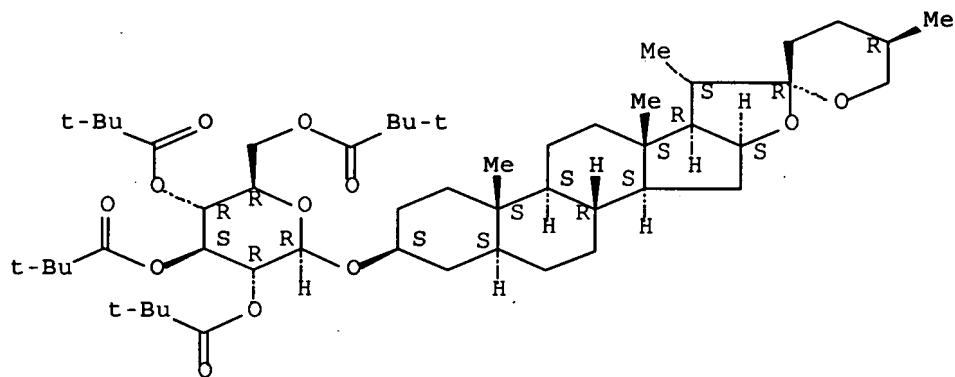
10/563,743



RN 100102-42-9 HCAPLUS

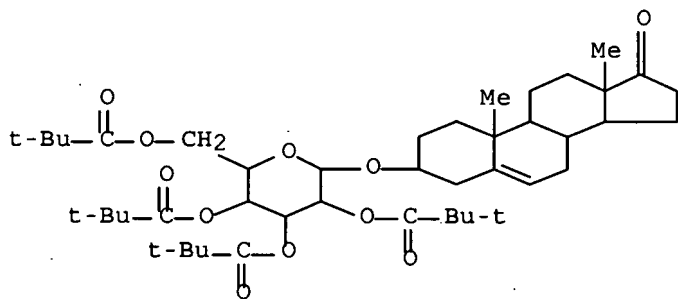
CN β -D-Glucopyranoside, (3 β ,5 α ,25R)-spirostan-3-yl,
tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

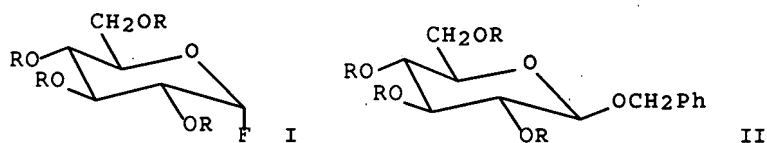


RN 100102-43-0 HCAPLUS

CN Androst-5-en-17-one, 3-[[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-, (3β)- (9CI) (CA INDEX NAME)



L125 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:167046 HCAPLUS Full-text
 DOCUMENT NUMBER: 102:167046
 TITLE: Stereoselective glycosylation of alcohols and
 silyl ethers using glycosyl fluorides and boron
 trifluoride etherate
 AUTHOR(S): Kunz, Horst; Sager, Wilfried
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500,
 Fed. Rep. Ger.
 SOURCE: Helvetica Chimica Acta (1985), 68(1),
 283-7
 CODEN: HCACAV; ISSN: 0018-019X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 102:167046
 ED Entered STN: 18 May 1985
 GI



AB The stereoselective glycosylation of alcs. and their silyl ethers was achieved
 by using O-alkyl-, O-acyl-, and acetal-protected glycosyl fluorides of the
 pyranose and furanose series and BF₃.Et₂O in CH₂Cl₂, e.g., glycosyl fluoride I
 (R = Me₃CCO) and PhCH₂OSiMe₃ gave 75% glycoside II (same R).

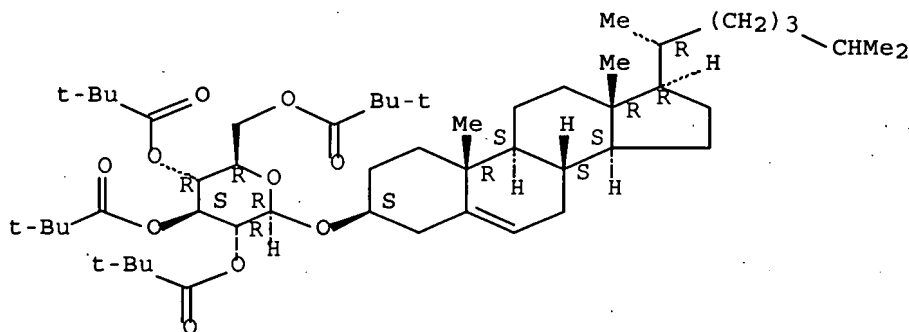
IT 81058-30-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 81058-30-2 HCAPLUS

CN β-D-Glucopyranoside, (3β)-cholest-5-en-3-yl,
 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

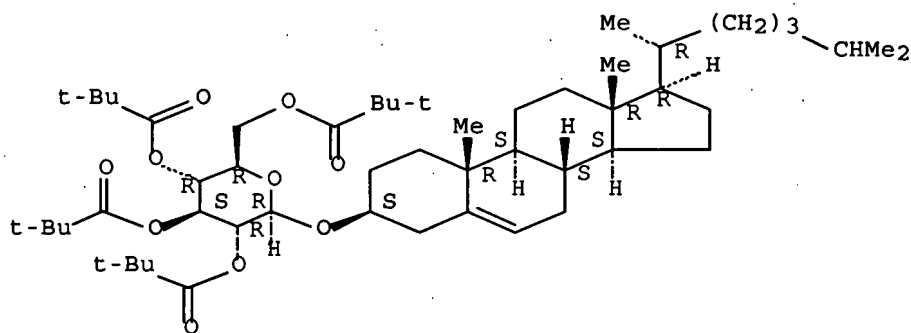
Absolute stereochemistry.



L125 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1982:492650 HCAPLUS Full-text

DOCUMENT NUMBER: 97:92650
 TITLE: Glycoside synthesis using 2,3,4,6-tetra-O-pivaloyl- α -D-glucopyranosyl bromide
 AUTHOR(S): Kunz, Horst; Harreus, Albrecht
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Fed. Rep. Ger.
 SOURCE: Liebigs Annalen der Chemie (1982), (1), 41-8
 CODEN: LACHDL; ISSN: 0170-2041
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 ED Entered STN: 12 May 1984
 AB The title compound (I) was prepared by pivaloylating D-glucose and reaction with HBr. I glycosidated PhCH₂OH and cholesterol in the presence of Ag salts. The formation of ortho esters was largely suppressed.
 IT 81058-30-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and deacylation of)
 RN 81058-30-2 HCAPLUS
 CN β -D-Glucopyranoside, (3 β)-cholest-5-en-3-yl, 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



=> => d que nos 1124

L1	STR			
L2	7869	SEA FILE=REGISTRY	SSS FUL L1	
L5	STR			
L24	591	SEA FILE=REGISTRY	ABB=ON PLU=ON	9991.5/RID
L26	400	SEA FILE=REGISTRY	ABB=ON PLU=ON	9614.3/RID
L32	254	SEA FILE=REGISTRY	SUB=L2 SSS FUL L5	
L39	2	SEA FILE=REGISTRY	ABB=ON PLU=ON	CHACOTRIOSE?
L40	3	SEA FILE=REGISTRY	ABB=ON PLU=ON	SOLATRIOSE?
L41	11836	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L39 OR ?TRIOSE?/BI
L42	11835	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L40 OR ?TRIOSE?/BI
L43	6	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L41 (L) STEROID#/OBI
L44	6	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L42 (L) STEROID#/OBI
L45	27601	SEA FILE=HCAPLUS	ABB=ON PLU=ON	GLYCOSYLATION+OLD,NT/CT
L46	571499	SEA FILE=HCAPLUS	ABB=ON PLU=ON	STEROIDS+OLD,NT/CT
L47	1054	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L45 AND L46
L48	7	SEA FILE=HCAPLUS	ABB=ON PLU=ON	L47 AND (L41 OR L42)

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L49	776	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	TRISACCHARIDES/CT
L50	5	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND L49
L51	16	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L43 OR L44 OR L48 OR L50
L106	243	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L32 (L) PREP/RL
L107	57	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L106 AND (L24 OR L26)
L116	299	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	LAWSON C?/AU
L117	3779	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	WEYMOUTH-WILSON A?/AU OR WILSON A?/AU OR WEYMOUTH A?/AU
L118	3	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L116 AND L117
L119	9	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L51 AND (1840-2004)/PRY, PY,AY
L120	50	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L107 AND (1840-2004)/PRY, PY,AY
L124	50	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L120 NOT (L118 OR L119)

=> d que nos l125

L1		STR				
L2	7869	SEA	FILE=REGISTRY	SSS	FUL	L1
L3		STR				
L5		STR				
L7		STR				
L19		STR				
L20		STR				
L24	591	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	9991.5/RID
L26	400	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	9614.3/RID
L30	100	SEA	FILE=REGISTRY	SUB=L2	SSS	FUL L3
L32	254	SEA	FILE=REGISTRY	SUB=L2	SSS	FUL L5
L34	60	SEA	FILE=REGISTRY	SUB=L2	SSS	FUL L7
L36	1	SEA	FILE=REGISTRY	SUB=L2	SSS	FUL L19
L38	73	SEA	FILE=REGISTRY	SUB=L2	SSS	FUL L20
L39	2	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	CHACOTRIOSE?
L40	3	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	SOLATRIOSE?
L41	11836	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L39 OR ?TRIOSE?/BI
L42	11835	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L40 OR ?TRIOSE?/BI
L43	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L41 (L) STEROID#/OBI
L44	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L42 (L) STEROID#/OBI
L45	27601	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	GLYCOSYLATION+OLD,NT/CT
L46	571499	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STEROIDS+OLD,NT/CT
L47	1054	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L45 AND L46
L48	7	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND (L41 OR L42)
L49	776	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	TRISACCHARIDES/CT
L50	5	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L47 AND L49
L51	16	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L43 OR L44 OR L48 OR L50
L53	35	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L30
L54	1380	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L32
L55	53	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L34
L56	2	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L36
L57	35	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L38
L102	0	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L34 AND (L24 OR L26)
L105	2	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	(L30 OR L34 OR L36 OR L38) AND (L24 OR L26)
L106	243	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L32 (L) PREP/RL
L107	57	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L106 AND (L24 OR L26)
L114	21	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L55 AND (L53 OR L54 OR L56 OR L57)

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L116 299 SEA FILE=HCAPLUS ABB=ON PLU=ON LAWSON C?/AU
L117 3779 SEA FILE=HCAPLUS ABB=ON PLU=ON WEYMOUTH-WILSON A?/AU
OR WILSON A?/AU OR WEYMOUTH A?/AU
L118 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 AND L117
L119 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND (1840-2004)/PRY,
PY,AY
L120 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L107 AND (1840-2004)/PRY
,PY,AY
L121 25 SEA FILE=HCAPLUS ABB=ON PLU=ON (L56 OR L105 OR L114 OR
L102)
L122 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L121 AND (1840-2004)/PRY
,PY,AY
L125 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L122 NOT (L118 OR L119
OR L120)

=>